**Synopsis**

The Internet creates new possibilities for the processes of democracy, and at the same time creates great challenges. For example, the most obvious application is to support elections; but the vulnerability of personal computers makes online voting a risky proposition.

The Internet has provided greater scope for communications from parties to voters, and from members of parliament to their constituents. The Internet also supports a potentially very busy ‘back-channel’ and, as a result, parties and politicians may feel some pressure. They are, however, likely to feel far more concerned about representative democracy coming under threat from electronically-facilitated direct democracy. Some aspects of e-government are also relevant to democratic processes. Greater community engagement and participation are possible. On the other hand, these ideas challenge the status quo.

This paper surveys developments in e-voting, e-politics and e-government, and identifies some specific topics on which more detailed research would be valuable.
Introduction

There are many senses in which the term ‘e-democracy’ is used. It may refer to the automation of existing processes such as voting. Alternatively, it may encompass ways of improving upon conventional representative democracy. In its more extreme forms, the term might envisage replacement of existing forms of democracy with something new. To many people, it also implies greater access to the workings of government. The purpose of this paper is to survey the important streams of thought that exist early in the 21st century.

The paper commences by briefly reviewing the aspects of Internet technology and of cyberspace behaviour that appear to be particularly influential. It considers the prospects for e-voting. This leads into ways in which members of parliaments can influence their constituents, and can use polls to augment their sense of the mood of their electorate, what issues are of current concern to them, and what their opinions are on those issues. It also looks at the scope for voters firstly to monitor their local member’s actions and their performance against their undertakings, and secondly to bring pressure to bear on their local members, for example, through email campaigns and precinct and issues-based committees whose purposes may be variously to support, to influence, and to oppose.

Consideration is given to whether representative democracy is threatened by the ubiquitous and ‘always-on’ nature of the Internet. Will polling graduate to referenda, initiatives, recalls and plebiscites?; and will representative democracy be qualified by, or even give way to, some form of direct democracy?

Several senses of the term e-government are then examined, including information flows driven by agencies, and those driven by the public. Of particular interest is the progressive extension of impact assessment beyond projects with environmental impacts to those with impacts on social values, such as privacy. Several movements from the second half of the 20th century are re-visited, to see whether they may bear more fruit in the new context of the Internet and cyberspace. The paper concludes by identifying a considerable number of issues that are in need of more detailed study.

The Internet’s potentials

Since it became generally available in the mid-1990s, the Internet has established itself as the information infrastructure that the economy and society had been waiting for. The origins and nature of the Internet in Australia are presented in some depth in Clarke (2004). There are weaknesses in Australia’s information infrastructure, in such areas as the practical availability and cost of broadband, and disadvantage based on location and on household income. On the other hand, penetration of at least the basic services is high (NOIE 2003a; 2003b), and transformation of both business and social activities is well under way. Accessibility appears set to improve further as wireless transmission from diverse mobile devices is facilitated.

The behaviour patterns of individuals and groups in cyberspace has some characteristics rather different from those in the real world. A science is yet to emerge, but some aspects of cyberculture ethos are reasonably discernible (Clarke 1999b; 2004).

There is a blend of entertainment and infotainment, on the one hand, with a considerable amount of social discourse, on the other. Among the catch-words that people associate with the Internet are human communications, openness, egalitarianism, participation, spontaneity and pseudonymity. In the context of democracy, a particularly significant expectation that has derived from the explosion of the Web has been effective freedom of information (Clarke 2000).
The wild enthusiasm of the Web’s early years has been tempered by the dot-com implosion and excesses such as spam, ‘malware’ (such as viruses and worms), and dissemination of child pornography. Reactions against the Internet’s impacts have the potential to seriously constrain access to information (Clarke 1999c), and perhaps even to convert the Internet into a tool of authoritarianism (Clarke 1994; 2001). The focus of this paper, however, is on the use of the Internet to enhance existing democratic processes, and perhaps to change the form of democracy.

**E-voting**

Representative democracy depends on large numbers of people electing small numbers of people to exercise powers that the constitution accords to elected representatives. Voting needs to be conducted in a context free of undue influence, or at least of coercion and a climate of fear. Voting systems must therefore be designed to protect every voter’s choices against disclosure. The integrity of a voting system is also critical to public confidence. It must resist manipulation, and ensure that the vote count reflects the votes actually cast. The system’s security and integrity must be both demonstrated in advance, and audited in arrears. Achieving these objectives is very challenging.

**Technology-enhanced booth voting**

Information technology can be applied to conventional polling-booth elections. This is often referred to as Electronic Machine Voting or Direct Recording Electronic. Much faster and more reliable calculation of the results is feasible, especially in complex proportional schemes such as the Hare-Clark system used in Tasmania and the ACT. The Department of the Parliamentary Library (2002) provides a review of the Electronic Voting and Counting System (EVACS) system developed in Canberra and applied to the ACT elections.

The considerable confidence that exists in relation to EVACS stands in sharp contrast to the situation in the United States. Serious concerns exist there about the many different device-types that have been installed recently to address the parlous state of vote-counting in that country (see, for example, Schneier 2003). Given that the modern ballot method is widely referred to in the United States as ‘the Australian ballot’, it is only reasonable that Australia lead the world in this area as well (see, for example, Zetter 2003).

**Internet voting**

There is considerable interest in enabling voting over the Internet. This is often referred to as Remote Electronic Voting or online voting. An optimistic scenario involves support for voting on any device attached to the Internet. But the nature of the Internet is such that data transmitted over it is subject to interception and adaptation. The security of commodity workstations is very low, and hence the data stored on Internet-connected devices, and the processing performed on them, are highly vulnerable to unauthorised access and manipulation.

At the other extreme, online voting might be restricted to a set of purpose-designed devices, that are located within controlled locations, such as public libraries, and that transmit data over the Internet in a secure manner, for example, by means of a Virtual Private Network.

Schemes have been used to support relatively small-scale elections, for example, for the boards of industry associations. There is considerable public disquiet, however, about the possible application of e-voting to the election of members of parliament, because there are so many risks involved. A few proposals have been put forward that might address those risks in a satisfactory manner (for
example, Chaum 1988). At this stage, none of the many competing developers have convinced sceptics that they can satisfy the requirements of a secure and auditable system.

Moreover, it has been argued that the nature of the Internet is such that it is simply not feasible for a satisfactory scheme to ever be devised. Rubin (2002) provides a review of the challenges. Jefferson et al. (2004) reports on a specific system called SERVE (Security Analysis of the Secure Registration and Voting Experiment), that was developed in order to enable an estimated 100 000 overseas United States military personnel to vote over the Internet in the 2004 Presidential election. The paper concluded that the scheme has all the flaws of any Direct Recording Electronic system, together with ‘numerous other fundamental security problems that leave it vulnerable to a variety of well-known cyber attacks’. A matter of days after the Jefferson et al. report was published, the agency responsible for SERVE abandoned the scheme.

The most likely directions currently appear to be that e-voting schemes that utilise the Internet in some way will be applied to low-risk elections, and for informal and semi-formal polling of the views and attitudes of relatively small and well-defined electorates. As experience is gained, security is demonstrated, audits are performed, public confidence increases, comprehensive risk assessments are undertaken, and risk management plans are devised and implemented, e-voting may come to be applied to progressively more risk-prone elections.

E-politics

Whether or not e-voting proves to be effective, it is only one small part of the political process. This section considers the broader question of applications of the Internet to support politics. Firstly, attention is paid to ways in which conventional representative democracy can be enhanced. Then the alternative of direct democracy is considered, followed by the possibility of intermediate forms.

Representative democracy

Briefs (1991) argued that ‘we have to dismiss the idea that computerized systems, however sophisticated and extended they may be one day, will ever play a considerable, more substantive role in political decision making in a genuine sense’. More than a decade has elapsed since then, and there have been no changes in ‘computerized systems’ so major as to undermine that thinking. But has the convergence of computing with communications, and the advent of the Internet, changed the situation?

The potential of the Internet to enhance conventional political processes was recognised at an early stage. Australia was an ‘early mover’ in the e-publication of Hansard and in web-casting of the proceedings of Parliament and Parliamentary Committees. Further opportunities exist in such areas as the conduct of hearings by means of Internet tele-conference and video-conference, and voter sentiment meters on webcasts, for example, of Question Time. Progress has been slow in the area of petitions, however. In almost all Australian jurisdictions, they must still be on paper, and signed by each petitioner in writing (resisting the electronic transactions legislation which was passed before the end of the last century).

Common uses have been for communications to citizens from parliamentarians and political parties. Party web sites have been established to encourage membership, declare policy, and provide public access to media releases. Domain names have been acquired to assist in the projection of both party and person ‘brand names’, and in specific campaigns.

Email has been harnessed, to such an extent that the House of Representatives and the Senate were virtually unanimous in exempting political parties from the spam legislation that the Parliament enacted in late 2003. It is likely that additional means will be harnessed or invented, in order to support
communication of political messages to voters. For example, ‘push polling’ (a political message disguised as a survey question) lends itself to Internet contexts.

The Internet supports ‘voter pull’ as well as ‘politician push’. Web sites and search engines make the past statements and actions of parliamentarians much more easily researchable than used to be the case. Inconsistency over time and in different venues, and duplicity, are more readily unearthed, and more readily brought to attention. Whether this will cause politicians to become less inconsistent and less duplicitous, or voters to become more cynical about politicians, remains to be seen.

In addition to such ‘representative watch’ capabilities, the Internet offers additional scope. There has been a tendency for parliamentarians to treat individual emails as being informal communications rather than letters from constituents. Coordinated email campaigns can be somewhat more convincing, especially if checks confirm that the identities, the contact points and the message are authentic. On the other hand, these approaches have, to date, shown little sign of displacing talk-back radio as the barometer of electoral opinion.

Some more formalised approaches may, however, attract closer attention from representatives. Opinion polling has long been conducted by parties. The economics may be changing, and it could become more feasible for individual members of parliament to conduct them within their own constituencies. In addition, electronically-supported election committees may prove highly valuable to candidates. If so, such groups might soon negotiate themselves into a fuller role as standing constituency committees. Issues-based groups may also gain attention, although perhaps only in relation to those issues that are perceived by politicians to be important enough to swing an election result.

Finally, the Internet facilitates social activism. In addition to familiar real-world activities such as marches, demonstrations and sit-ins, social activism has a cyberspace dimension. The Internet has been a boon for interest groups in conducting consultations, preparing submissions, and coordinating action. Instruction in responsible social activism is offered on such sites as Net Action. A case study from the New South Wales South Coast is provided by Allen (2003).

At its most extreme and non-constructive, social activism can involve automated generation of volumes of emails, web site defacements and redirects, web site parodies, and ‘denial of service’ attacks on political web sites. A collective term for such relatively destructive forms is ‘hacktivism’ (sfear 1999). Politicians can ensure that only extremist troublemakers resort to such methods by responding positively to more constructive approaches.

**Direct democracy**

One of the original reasons for representative democracy being preferred over other forms was practicality. Transport, electronic communications, and now the Internet, have rendered direct democracy far more practicable than it used to be. For the existing system of parliamentary democracy to retain acceptance, it may be necessary for the Internet to be applied to more than just a few minor enhancements to representative democracy. An analysis of alternatives is currently being undertaken by the Victorian Parliament.

Direct democracy involves the voting public having powers greater than merely the election of representatives. Examples include:

- **the initiative**: to initiate legislation, that is, to instruct the legislature to consider a Bill, or to force a referendum
• the referendum: to determine whether a Bill will become law, or to reject or repeal a Bill already passed by the legislature, or to determine Constitutional amendments

• the recall: to remove from office an elected or an appointed official

• the plebiscite: to determine a change of sovereignty.

Direct democracy risks influence by the powerful, and rapid swings in voter sentiment. On the other hand, these forms originated in ancient Greece, and they coexist with contemporary representative democracy. Switzerland, and the 50 per cent of United States states that have at least some form of direct ballot, have not become ungovernable.

The outright replacement of representative democracy may be too risky, or simply too threatening to established interests. Several intermediate forms already exist, however, and more are likely to emerge. For a recent review of developments, see Economist (2003).

An example of particular relevance is the ‘deliberative poll’. This involves a forum in which discussion and analysis are conducted, and communicated to both parliamentarians and the public. It enables participation, and provides voice, but the parliament delegates no power of decision. This approach is unusual in Australia, although the Constitutional Commission of 1987–88 was an example.

The Internet provides ample means whereby fora could be created to support deliberative polling. Large representative groups could be periodically provided with information, and their thoughts gathered using Internet channels. Individuals could volunteer for limited-term participation in such ‘councils’, ‘advisory bodies’ or ‘juries’. Assimilation of such elements of direct democracy may be necessary for the existing system of parliamentary democracy to retain acceptance.

**E-government**

The term ‘e-government’ is commonly used to refer to any form of information or service delivery by government agencies to other parties, including individuals, business enterprises and other government agencies. The focus of this paper is on only those aspects that directly relate to the democratic process.

Communications from government agencies to citizens have matured from brochure-ware, to information services, and on to discovery processes including both structured menus and search engines. For some years now, entry points have been provided to mediate between citizen needs and agency structures, in many cases across jurisdictional boundaries (Clarke 1999a).

Other categories of e-government are, on the other hand, less well developed. Some agencies accept communications from citizens by email, or by less user friendly web-form interfaces. These communications are capable of being supported by sophisticated workflow processes, although correspondence management systems are only now being enhanced to deliver on that promise. The tensions between service on the one hand, and cost-control and cost-transfer on the other, loom large in this area.

Norms for handling enquiries and complaints were set long ago by Ombudsman’s Offices and standards organisations, see for example, SA (1995), Ombudsman (1997).

The barriers to effective research by individuals and groups have been broken down by the e-library that the Web has enabled, coupled with the power of search engines.

The Internet offers many opportunities for improved communications between community groups and government agencies. Distance and cost have been barriers in the past, but it is now much more
practicable to establish and maintain focus groups, and to run formal advisory groups and consultative committees. An example is the guidance on community consultation provided by the Government of Western Australia (WA 2002).

This reluctance is in marked contrast to governments overseas. European countries have been positive about e-democracy (for example, the Council of Europe Committee of Ministers 2002, whose key Principle is reproduced in the Appendix to this paper). The European Union has invested in support for interactions among citizens about e-government-related matters. Initiatives on consultation and participation have been launched by the governments of Canada and New Zealand. The Organisation for Economic Cooperation and Development has also initiated policy discussions in this area (OECD 2003).

Clarke (1992) drew attention to the significant differences between conventional information systems and the then-emergent ‘extra-organisational systems’, to which people were directly connected. The early examples, such as ATM and EFTPOS systems, depended on dedicated networks; but the Internet has enabled such systems to become commonplace.

The last half-century has seen a long series of discussions about how to increase stakeholder involvement in the conception, design and operation of information systems. These have included:

- ‘sociotechnical systems’ — Emery & Trist (1960), Mumford (1983)
- the ‘social informatics’ approach, which is ‘the interdisciplinary study of the design, uses and consequences of information technologies that takes into account their interaction with institutional and cultural contexts’ — Kling (1999).

The emergence of a practical mechanism for participation can be seen in the progressive mutation from Environmental Impact Statements to the much more community-involving Environmental Impact Assessment notion. These are paralleled by the greatly increased recognition of the need for Privacy Impact Assessment (Clarke 1998) and Social Impact Assessment. The Internet has altered the economics of participation.

**Conclusions**

The Internet has opened up a greatly increased range of options for the Australian polity. They bring to a head the long-simmering tension between government as mechanism of social control and government as service-provider to citizens. If the tensions are to work themselves out constructively, much more information is needed on the wide variety of options.

The following are specific projects that, in the basis of the survey conducted in this paper, could make valuable contributions to e-democracy in Australia:

- studies to establish deeper understanding of the patterns of cyberspace behaviour of Australian citizens, with particular reference to matters of a political nature
- a study of the scope for technology, such as the Electronic Voting and Counting System, to be applied in Australian government elections and referenda
- documentation of the use of online voting in all contexts in Australia, and in other relevant countries
• studies of the use of the Internet to support responsible social activism
• a study of the techniques of hacktivism, and of the motivations underlying their use
• a study of the impact of the Internet on the practicability and economics of direct democracy, particularly key elements such as initiatives and referenda
• a study of the use of the Internet to support deliberative polling and other kinds of formalised consultative processes
• documentation of enquiry and complaints handling processes in Australian Government agencies, with particular reference to enhancements that are possible in the Internet context
• studies of community consultation processes, covering environmental, privacy and social impact assessment, and including case studies of effective use of the Internet to achieve effective and efficient communications between agencies and stakeholder groups.

Bibliography


Emery F & Emery M 1993, Participative design for participative democracy, The Australian National University, Centre for Continuing Education


**Resources**

**E-democracy generally**


CoE 2002, ‘Draft recommendation on e-governance’ Council of Europe Committee of Ministers, June 2002, at http://www.coe.int/t/e/integrated_projects/democracy/02_Activities/01_e-governance/01_e-governance_draft_recs_v2.asp#TopOfPage

Communications of the ACM 44, 1 (January, 2001), Special Issue: 10 articles on e-democracy


**E-democracy generally in Australia**


**Internet technology**


Cyberspace behaviour


E-voting


Lorrie Cranor’s resource pages, at http://lorrie.cranor.org/voting/

election.com Inc., at http://www.election.com


EPIC’s Voting Page, at http://www.epic.org/privacy/voting/


Concerns about the integrity of e-voting

The Free e-democracy Project, by Jason Kitcat, at http://www.free-project.org/learn/ (includes ‘Key Players’ in the industry)

FIPR Reservations, at http://www.fipr.org/e-democracy/FIPR.html


National Committee for Voting Integrity, at http://www.votingintegrity.org

‘Recommendation on legal and operational standards for e-enabled voting (Second Draft)’ Multidisciplinary Ad Hoc Group of Specialists for the Council of Europe Committee of Ministers, July 2003, at http://www.coe.int/T/e/integrated%5Fprojects/democracy/02%5FActivities/02%5Fe%2Dvoting/02%5FDraft%5FRecommendation/04IP(2003)47revision_after_LOS_220703.asp#TopOfPage


Verified Voting Coalition, at http://www.verifiedvoting.com/

E-voting in Australia


E-politics


Project on Government Oversight, at http://www.pogo.org/

**Internet activism**


The Hacktivist, at http://www.thehacktivist.com/


**E-government**


**Consultation and participation**


Emery, F & Emery, M 1993, ‘Participative design for participative democracy’ The Australian National University, Centre for Continuing Education


International Association for Public Participation, at http://www.iap2.org/


Appendix: Council of Europe on e-democracy


Principle 2. E-democracy

Member states should:

- explore ways in which e-technologies can be employed to improve the responsiveness of public authorities
- clarify the legal framework that permits e-participation as one of a range of participation instruments available to public authorities
- promote e-participation in local, regional, national and inter-governmental public life, and encourage e-participation by the full range of communities existing in a local area (both communities of place and communities of interest) and ownership by these communities of ideas, positions and public value
- recognise and explore the opportunities that e-technologies can bring in improving the transparency of democratic decision making within and between public authorities
- make at their own initiative official documents available online to the public when it is in the interest of promoting transparency of public administration or will encourage informed participation by the public on matters of public interest; and encourage central, regional and local public authorities to do likewise
- make official documents available online to the public in an unabridged version in order to enable the public and the media to build their own views on the issues in question
- work with the online media as central partners in the dissemination of public information, and in doing so, seek regularly the opinion of media professionals on how public information should be presented in order to best serve their needs
- pay attention to the need for moderation, feedback to participants and follow-up in e-participation and online consultations and debates
- in recognition of the media’s role in encouraging e-participation, public scrutiny and transparency, support the modernisation of the media — in particular local and regional media and the training of journalists — so that it can fully exploit the possibilities offered by e-technologies
- strengthen the scrutiny of decision-making in public authorities, by improving access to information and communication within and between public authorities
- improve the processes of democratic decision-making by focusing upon the tools and information that support the legislature, judiciary and executive of public authorities in reaching appropriate decisions
- consider e-enabled ways of voting in elections at all levels of government, as one component of improving engagement of citizens with government
- promote the use of e-technologies to support locally elected members in conducting their representative and constituency roles
• explore the capabilities of a range of e-technologies to encourage participation and access to information, and target efforts in this area specifically at hard to reach or excluded groups

• encourage the development of new forms of citizen expression and e-networked public spheres and practices, such as on-line civic networks, citizens panels, deliberative polling, focus groups and preference modelling, in accordance with existing legislation

• take the necessary and appropriate steps to facilitate easy access to public officials.