

Democracy and New Technology

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‘Electronic Democracy: Central Themes and Issues’

Summary

Despite their prevalence in all areas of economic and social life, information and communication technologies (ICTs), and their implications, continue to be largely ignored by United Kingdom political science. Yet the potential of modern ICTs to profoundly alter political, social and economic relations is extensive. This article is a brief discussion of the main themes and issues that arise from an exploration of ICTs in relation to democracy: that is, electronic democracy. It offers an introduction to the subject, and to the two following articles, each of which details specific examples and issues associated with the topic.

ICT and Democracy

New ICTs pose both opportunities and threats for democracy. On the one hand, ICTs offer the promise of an information rich society: one in which citizens have access to a wide range of information from a variety of sources; one in which every issue is extensively debated amongst citizens and policy makers through interactive media; and one in which participation in the political process is greatly increased. On the other hand, ICTs also threaten to undermine democracy by compounding existing biases in the distribution of knowledge and information, by fragmenting discourse between increasingly differentiated policy areas, and by reducing participation to distanced and marginalised votes that occur as knee-jerk reactions to a limited number of ‘soundbite’ options. New ICTs, therefore, have ambiguous but profound consequences for democracy, both now and in the future. Before analysing their significance for specific models of democracy, however, it is necessary to outline the technologies that are of interest, and their general relationships to democracy.

One of the most comprehensive attempts to define the technologies that are important to democratic politics has been that developed by Abramson et al.¹ Whilst their checklist of technologies is interesting, its value here is limited because, as they state themselves (p.4), ‘Given the pace of technological change, any attempt to provide a timely list of the new media [technology] is doomed to a short life’. A more valuable product of their work, however, is their identification of six properties which characterise new ICTs, and which make them especially relevant to political activity (ibid pp4-5):

¹J.B.Abramson et al, *The Electronic Commonwealth: The Impact of New Media Technologies on Democratic Politics*, Basic Books Inc, 1988).

- They explode all previous limits on the volume of information that can be exchanged.
- They make it possible to exchange information without regard, for all practical purposes, to real time and space.
- They increase the control the consumers have over what messages are received and when.
- They increase the control senders have over which audiences receive which messages.
- They decentralise control over mass communication.
- They bring two way or interactive capacities to television.

This identification of characteristics is helpful in that it both defines the broad range of technologies that can have an impact upon democracies, and indicates the ways in which those technologies may influence politics. In particular, it highlights the importance of telematics (that is the integration and synthesis of computing with communication technologies) and its ability to transform traditional democratic processes.² The definition is limited, however, in so far as it is unable to distinguish between the influences of different technologies.

In an earlier work that focused upon this subject (and which took into account the importance of telematics), Laudon³ classified ICTs into three families: data transformation technologies such as the computer which 'serves as a tool for the collection, storage, manipulation and retrieval of very large sets of information' (p.14); mass-participation technologies such as the traditional broadcast media (radio and television) 'which function to transmit information from one central source to thousands or millions of persons.' (p.15); and interactive technologies 'which allow for horizontal communications flows among individuals and organised groups ...' (p.16) Examples of the latter include telephones, two way cable and other interactive forms of television, and interactive computer networks which allow computers (and operators) to communicate. (The advent of the Internet can be seen as being one of the most important recent developments in the evolution of interactive technologies.) Whilst the capacity of different interactive technologies to enhance participation varies, what distinguishes them from earlier mass-participation technologies is that information recipients are no longer passive, but can actively participate in, and control, the nature and flow of communications.

The most significant feature of Laudon's work is his attempt to analyse the relationship between technology, 'modes of organisation' (who has access to the information potential and who controls its flow) and the models of democracy implicit within each. He argues that each class of technology is characterised by a particular mode of organisation which, in turn, implicitly leads to a particular model of democracy. Thus: data transformation technologies are typically organised around experts and lead to managerial (or technocratic) models of democracy; mass participation technologies encourage plebiscitarian modes of organisation and generally lead to political models that concentrate upon populism; inter-

²Early discussions of technology and democracy tended to treat the technologies and their impact separately. For example C.Cherry, *World Communication: Threat or Promise? A Socio-technical Approach*, Wiley-Interscience, 1971; S.R.Hiltz & M.Turoff, *The Network Nation: Human Communication via Computer*, Addison-Wesley Publishing Co, 1978. Such treatment has become progressively less useful as telematics have become more significant to concepts of electronic democracy.

³K.Laudon, *Communication Technology and Democratic Participation*, Praeger Publishers, 1977.

active technologies are most appropriate for organised sub-groups and lead to implicitly pluralist models of democracy. For Laudon, the important feature of this model is that when examining the political implications of ICT in a democracy it is the differences in access and control which lead to differences in 'who benefits and who loses influence, who decides to participate in what decision, when and how' (p.19). Given that all three types of technology are present in most (Western) democracies, it is not only the existence of such technologies but their relative influence in the policy process that is significant. Furthermore, different political cultures will develop distinctive balances between the three types of technology, and will exploit their democratic potential in very differing ways. Thus, implicitly pluralist political cultures are more likely to welcome interactive technologies into the policy process, whilst implicitly technocratic polities are more likely to concentrate policy processes around the technologies of data transformation.

The relationship between ICTs and democracy, therefore, is more complex and ambiguous than is at first apparent. Laudon's work identifies the overarching nature of this subject: the link between discussion and study of technology (which tends to be the focus of much of the material on ICT and democracy) and democracy – a synthesis we believe to be fundamental to a comprehensive study of the subject. In the remainder of this article we seek to explore some of the assumptions which are central to a broader based discussion of the subject, but which are seldom examined or explained.

ICTs and Contemporary Models of Democracy

Interest in using ICTs to develop an electronic democracy first emerged in the USA in the early 1970s. The impetus for the development of ideas and experimental projects was the increasing synthesis of communication and information technologies noted above, and increasing concern with the 'health' of the American political system: declining rates of political participation (principally voting) and high levels of cynicism and civic distrust. Consequently, most experiments with electronic democracy and much of the subsequent analysis of its potential, are heavily dependent upon features of American political culture, and do not necessarily translate into other democracies. Nevertheless, more recent European interest in the subject⁴ is beginning to redress this imbalance.

Discussions of electronic democracy generally concentrate upon three broad conceptions of democracy: direct or plebiscitary, representative and communitarian.⁵ Each understanding of democracy argues for a different design, use and regulation of new technology. Appreciation of this fact is fundamental when studying the work of many authors, because, as Arterton discovered, electronic democracy projects have to a large degree been shaped by these conceptions.⁶

⁴ See, for example: W.van de Donk et al, *Concurring Revolutions: ICT and Democracy*, IOS Press, forthcoming.

⁵ J.B.Abramson et al, *ibid*; W.van de Donk & P.Tops 'Information and Democracy: Orwell or Athens', *Informationization and the Public Sector*2, 1992.

⁶ F.C.Arterton, *Teledemocracy: can technology protect democracy?*, Sage, 1987.

Plebiscitary Democracy

Traditionally the size of modern states was seen to make direct democracy impossible. Nevertheless public opinion expressed through the plebiscite continues to stand as a symbol of true democracy and a practical way to empower individuals to do more in government. Consequently, advocates of plebiscitary democracy were in the forefront of much of the early writing and development of electronic democracy projects.⁷ They saw the potential new technology offered in eliminating constraints of space and time, which had traditionally worked against direct democracy. Thus ICT could provide the information, processing power and communication facilities which would enable unlimited numbers of people to participate simultaneously in debate and voting. The problems associated with these developments did not go undocumented, though they were less reported. In one of the earliest attempts to explore the impact of ICT on society Martin and Norman⁸ concluded:

‘Voting from home is a technical possibility, and perhaps will be implemented in some countries before the end of the century. Continuous computerized referendums on all matters of public importance may appear to be a logical extension of Western democracy, but if attempted, would almost certainly be its ultimate downfall! Could any political system survive the volatility of ill- educated public opinion? The computerised society must steer a narrow course between automation of democracy and automation of tyranny.’

One of the most thorough rebuttals of plebiscitary democracy is offered by Abramson et al (*ibid*). They argue that there is a characteristic danger in electronic plebiscitary democracy. The focus on speed and numbers undermines the room and value of discussion and deliberation. ‘The result is to reduce political participation to the passive and private act of registering one’s own preconceived opinion on an issue. Politics becomes simply a set of institutional arrangements for expressing and satisfying the interests we hold as private persons.’ (p.21). The danger of electronic democracy projects that aim to achieve direct participation in politics through a plebiscitary model is that, in concentrating upon enhancing participation, they ignore the interactive discourse that is a fundamental feature of a developed democracy. Push-button voting becomes more important than developing the knowledge and awareness amongst citizens that enables them to make informed and rational decisions about their voting behaviour.

Representative Democracy

Alternatively, ICTs can make existing models of representative democracy more responsive. This is a view espoused strongly by American pluralists who expect ICTs to create a more level playing field on which a diverse range of interest groups can compete. From this perspective, ICTs are expected to make more information more widely available to a more diverse range of groups, and for a

⁷ For example A. Toffler, *Future Shock*, Bantam Books, 1971; T. Becker, ‘Teledemocracy’, *The Futurist*, December 1981.

⁸ J. Martin & R. D. Norman, *The Computerised Society*, Prentice Hall, 1970, pp.298-9.

more diverse range of purposes, than has previously been possible. Thus, one suggestion – which relates to cable television specifically is that it can ‘... break the hold of mass-audience programming on television – to move to a diverse menu of programs aimed at the diversity of groups and interests that constitute a morally pluralistic society ...’. In addition, new technologies give groups access to information, and the means to store and process it relatively cheaply, quickly and effectively: these are benefits which were previously only available to large and wealthy organisations. The development of freenets (local networks which in turn hook into national networks) in many American communities is an example of the use of ICTs to promote the pluralist discourses that underpin the political culture of that particular form of representative democracy.

The problems of using ICTs to enhance existing models of representative democracy are also manifest. Most significantly, there is a very real danger that ICTs used in this context will serve only to compound existing biases in the distribution of information between different groups. New technologies, therefore, also have the potential to augment extant asymmetries in the distribution of information, and therefore, of power. Where access to, or control of, such technologies is limited especially by a technocratic élite.⁹ ICTs can be used to militate against democracy.

Communitarian Democracy

A third view is that of communitarian or ‘strong’ democracy. Citizenship and the common good are the key features of communitarianism.¹⁰ The aim of democratic politics becomes

‘to reorient our ends in life; to enlarge the interests of the individual through debate and discourse with others; to enrich the self through the experience of citizenship.’ [Thus] ‘Democracy is not a process for allowing a majority to rule over minority interests antagonistically; it is a process of persuasion through which we seek to create and maintain a good life in common.’¹¹

ICTs are particularly appropriate for promoting communitarianism. More direct forms of voting and opinion giving become possible using ICTs and this fulfils one dimension of the communitarian agenda (criticisms of such plebiscitary models notwithstanding). But ICTs also provide the means by which people can be informed and educated. In addition ICTs provide new mediums through which people can come together in communities where, perhaps because of distance, geography or other barriers, they were previously not able. The wide ranging experiments with electronic town meetings being undertaken in numerous American localities is perhaps the most visible example of ICT and the communitarian agenda. Here cable television, networked computers and telephones function together as a package which enables two way debate and discussion of issues prior to (in most cases) a poll of opinions.

⁹L.Pratchett, ‘Open Systems and Closed Networks: Policy Networks and the Emergence of Open Systems in Local Government’, *Public Administration*72/1, 1994.

¹⁰B.R.Barber, *Strong Democracy: Participatory Politics for a New Age*, University of California Press, 1984; A.Etzioni, *The Spirit of Community*, Crown Publishers, 1993).

¹¹Abramson et al, *ibid*, p.22.

*'Public feedback is advisory and respects the responsibility of elected leaders to make decisions and the responsibility of citizens to communicate with those who govern.'*¹²

Information and Democracy

More rarely recognised and analysed than assumptions concerning models of democracy are those associated with information and democracy. The most straightforward are based on the generally held view (which stretches back to the Greeks and was immortalised in the words of Francis Bacon) that information equals knowledge and knowledge equals power. As noted above, telematics – the convergence of information-processing and communication technologies – is fundamental to electronic democracy. Consequently, ICTs with their vastly expanded (and expanding) power to collect, store, process and transmit information are seen as the keys to unlocking access to information and therefore knowledge and power. Acceptance of this straightforward view of the value and role of information has led many exponents of electronic democracy to assume that because ICTs can influence the distribution and flow of information throughout society they are inherently democratic.

A more clearly argued correlation between information, ICTs and democracy was presented by Manor.¹³ He argued that '... there are three main sources of distrust and scepticism concerning democracy: (1) the complete loss of control over the leaders by those led, (2) the inability of democracy to provide public services efficiently, (3) the impracticability of participatory democracy because of the deficiencies and inabilities of citizens.' (p.251). Manor concluded that all these could be considered in some way problems of information. Therefore as computers deal with information, its communication and use then 'Computers can, in fact, be used to improve representative democracy; they can even be utilized to establish participatory democracy.' (p.252).

Finally Doctor¹⁴ sought to develop the concept of 'information democracy' '... a sociopolitical system in which all people are guaranteed the right to benefit from access to information resources. Information democracy deals with empowerment, with ensuring that people have the tools they need to participate in the decision-making structures that affect their daily lives.' (p.44). Doctor locates information clearly within a broader and deeper debate on power. He notes that there appears to be general agreement (among political theorists) that power derives from three interrelated sources; money, authority and knowledge, and that '... the presence or absence of these sources in various combinations determines whether an individual or group is empowered.' (p.49). The degree of empowerment dictates the opportunities to participate in the decision making of government – a requirement of democracy. He concludes that 'Such opportunities in turn require adequate and equal distribution of information resources as well as

¹²D.Elgin, 'Revitalising Democracy through Electronic Town Meetings', *Spectrum*, 66/2, 1993 (our emphasis).

¹³Y.Manor, 'The Contribution of Computers to Participatory Democracy', in E.Mumford & H.Sackman (eds), *Human Choice and Computers*, North-Holland Publishing Co, 1975.

¹⁴R.Doctor, 'Social Equity and Information Technologies: moving towards information democracy', *ARIST*, 27, 1992.

the ability to use those resources effectively'. (p.50). The gap between the information rich and poor, and strategies for addressing information 'poverty' – for example the provision of publicly accessible ICTs and information resources – are therefore fundamental to the health of modern democracy.

Conclusion

This article has briefly introduced the main themes and issues that arise in the analysis of ICTs and electronic democracy. It has highlighted the main features of ICTs that make them significant for democracy, and has examined their influence in relation to three models of democracy. It has also considered the more implicit issue of why information, and hence information and communication technologies, are important for democracy. But, in introducing these themes a number of further issues arise that have yet to be debated in United Kingdom political science. Firstly, as noted earlier, much of the material on electronic democracy, both theoretical and empirical, is drawn from American sources and relies heavily upon ideas of democracy and politics that are central in the USA. This is not to suggest that all literature which discusses the subject is American. A number of United Kingdom based authors have considered the subject.¹⁵ And a recent edition of *Demos* also discussed the subject within the broader topic of democratic reform. But all these are only partial discussions of electronic democracy, which deal with selected areas of interest and concern. Most importantly, there has been no attempt to consider the extent to which American experiments in electronic democracy are relevant in a United Kingdom context. The experiments in electronic town meetings currently under way in the USA depend heavily upon the concept of strong, pluralist democracy and a desire to sustain and enhance communitarian democratic structures. But the political, social and geographical differences of the United Kingdom make such models less appropriate for this country, and suggest that attempts to implement the 'smart town hall' in the United Kingdom will have very different consequences and outcomes for democracy to those experienced in the USA.

Secondly, a technological determinist view often dominates the subject of electronic democracy. This can be detected at all levels of discussion, both descriptive and predictive, and particularly in literature which deals with the design and operation of technology. But, like any technology, ICTs are political artifacts. Consequently, rather than seeing them as autonomous developments, it is important to recognise that the design, application and environment that they create are policy choices and thus political choices.¹⁶ As Abramson et al (*ibid*) point out, the alternative view that technical things do not matter at all – what they term 'political determinism' – is equally misplaced. While it is true that technology itself does not cause any particular political changes it certainly enables them. This applies in both the sense that it enables changes to take place that would otherwise not have been possible (for example, plebiscites in geographically spread areas in real time) and enhances (or exaggerates) other effects. Furthermore, ICTs, like other

¹⁵For example, D.Lyon, *The Information Society*, Polity Press, 1988; I.McLean, *Democracy and New Technology*, Polity Press, 1989; G.Mulgan, *Communication and Control*, Polity Press, 1997.

¹⁶I.Horrocks & J.Webb, 'Electronic Democracy: a policy issue for United Kingdom local government?', *Local Government Policy Making*, 21/3, 1994.

technologies, almost always have unintended and unplanned consequences. The conclusion that follows from this is that ICTs have to be taken seriously when discussing democratic and political developments in the late twentieth century. The synthesis of information and communication technologies into combined packages of interactive technology – for example multi-media PCs – is, and will increasingly, exert tremendous pressures on existing economic, political and social relations. The question is, therefore, not should ICT be allowed to impact on democracy, but how. Consequently political science should turn to the ways in which ICTs are designed, organised and operated so that it can support and strengthen democracy rather than undermine it. Democracy will benefit most from the increasing prevalence of ICTs in economic, political and social life, where it takes deliberate advantage of the interactive capacities of new technologies to improve information and discourse over all issues, and to generally enhance participation in politics.

The potential of electronic democracy to deliver particular democratic outcomes is far from conclusive. New ICTs will have differing impacts, depending upon a number of complex and inter-related factors, such as the political culture in which they emerge and the model of democracy that is implicit to that culture. It is where ICTs are implemented to support a model of democracy that is not in keeping with the political culture of that country that their impact is most ambiguous and potentially dangerous.

That the impact of information and communication technologies (ICTs) on government, the political system and democracy generally continues to increase is largely ignored within mainstream political science in the United Kingdom. One consequence is that, with the exception of our previous work¹⁷, there has been hardly any serious discussion and analysis of the concept of electronic democracy and how it might apply in a United Kingdom context. A result is that material of an American origin (where the subject has been a matter of academic discussion, analysis and experimentation for over twenty years) is often used as the starting point for United Kingdom study without much recognition of the problems associated with interpreting and applying that work in a British context. The time has now come to analyse the prospects for electronic democracy from a uniquely United Kingdom perspective. This is not simply a debate that will become important in the future as the impact of ICTs on democracy become more apparent – it is a debate that has already become important. In providing an introduction to the themes and issues of electronic democracy this article begins to develop the debate on concerns for democracy that will not go away simply by being ignored by political scientists. In the era of the ‘information highway’, ‘virtual reality’ and ‘cyberspace’, electronic democracy is an issue of the present as well as of the future.

¹⁷For example, I.Horrocks & J.Webb, *ibid*; C.Bellamy & I.Horrocks ‘Electronic Exchange of Information with the Public: Will it Solve the Problems of Democracy in England?’, in W.Donk et al (eds), *ibid*; L.Pratchett ‘Democracy Denied: the Political Consequences of ICTs in United Kingdom Local Government’, in W.Donk et al (eds), *ibid*.