Interaction between states and citizens in the age of the Internet: "e-government" in the United States, Britain and the European Union

Andrew Chadwick* with Christopher May

Presented to the American Political Science Association Annual Meeting, San Francisco, August/September 2001

Abstract

In this article we present a broad empirical overview of the electronic face of government, and we examine how the possibility that ICTs are capable of reshaping structures of governance has been integrated into policy pronouncements regarding e-government and the 'renewal' of democracy by the American and British governments, and the European Union. Our main aim is to provide an explanation for the predominantly non-interactive and non-deliberative character of e-government as it currently stands. We proceed as follows. First, we set the scene by presenting our analysis of some of the cross-continent data gathered independently under the auspices of the Cyberspace Policy Research Group programme. This clearly demonstrates that some of the promises of e-government democratisation through enhanced interaction between citizens and government, and between citizens themselves - are yet to be fulfilled. Secondly, as a way in to understanding the range of possibilities offered by e-government, we sketch out three models of interaction, which we term 'managerial', 'consultative' and 'participatory'. Thirdly, using documentary evidence from the United States, Britain and the European Union, we undertake a comparative analysis of policy statements on the role of ICTs in national government since the early 1990s. We conclude that the democratic possibilities of the Internet are likely to be marginalised as a 'managerial' model of interaction becomes dominant.

^{*} Dr Andrew Chadwick, Lecturer in Political Science, Department of Social and Political Science, Royal Holloway, University of London. (Andrew.Chadwick@rhul.ac.uk)

Dr Christopher May, Senior Lecturer in International Political Economy, School of Politics, University of the West of England, Bristol, UK. (Christopher.May@uwe.ac.uk). The authors would like to thank Samantha Turner for her advice and assistance. Any errors or shortcomings are our own.

Introduction

The trouble with the zealots of technology as an instrument of democratic liberation is not their understanding of technology but their grasp of democracy (Barber, 1997: 224)

National governments throughout the developed world have recently embarked upon a new wave of initiatives which draw upon the use of information and communication technologies (ICTs). One does not have to subscribe to technological determinism to argue that the interconnectedness facilitated by the Internet far exceeds anything available before. In this article we present a broad empirical overview of the electronic face of government, and we examine how the possibility that ICTs are capable of reshaping structures of governance has been integrated into policy pronouncements regarding e-government and the 'renewal' of democracy by the American and British governments, and the European Union. Our main aim is to provide an explanation for the predominantly non-interactive and non-deliberative character of e-government as it currently stands.

We proceed as follows. First, we set the scene by presenting our analysis of some of the cross-continent data gathered independently under the auspices of the Cyberspace Policy Research Group programme (CyPRG, 2001). This clearly demonstrates that some of the promises of e-government – democratisation through enhanced interaction between citizens and government, and between citizens themselves – are yet to be fulfilled. Secondly, as a way in to understanding the range of possibilities offered by e-government, we sketch out three models of interaction, which we term 'managerial', 'consultative' and 'participatory'. Thirdly, using documentary evidence from the United States, Britain and the European Union, we undertake a comparative analysis of policy statements on the role of ICTs in national government since the early 1990s. We conclude that the democratic possibilities of the Internet are likely to be marginalised as a 'managerial' model of interaction becomes dominant.

We argue there are three basic models of interaction between the state and citizens which underpin the practice of 'e-government'. Each is an ideal type in the Weberian sense - a heuristic tool for identifying and classifying the main features of a set of phenomena, with a view to rendering complex processes more intelligible and comparable in a way that aids further empirical research (Weber, 1947). Our three models are not mirror-images of reality. Rather, they represent the distinctive characteristics of each model of interaction. Equally, while in any specific case one of the three models is likely to be the dominant form of interaction, all three may intersect and overlap.

The principal features of managerialism can be summarised as follows: a concern with the 'efficient' delivery of government information *to* citizens and other groups of 'users'; the use of ICTs to improve flows of information within and around the organs of government; a recognition of the importance of 'service delivery' to 'customers'; the view that speeding up information provision *is by itself* 'opening up' government; a general absence of user resource issues such as ability to receive and interpret information; and 'control' and 'spin' as the defining logic. In the British case, the managerial use of ICTs has emerged as a strong theme in the Labour administration's obsession with 'joined-up government'. In the United States, the Clinton administration's aim to 'reinvent government' closely followed this managerial path, although it is unclear whether the Bush administration will take forward even this limited agenda. In Europe, despite some recognition of more developed democratic potentialities within the governmental deployment of ICTs, most discussion has centred on issues of efficiency and 'service delivery' by member governments and EU agencies.

We contend that the way in which the debates about the interaction between government and citizen are framed will have a major impact on the forms of e-government that are developed in the next few years. As Bill Dutton has noted: Digital government can erode or enhance democratic processes... [but] the outcome will be determined by the interaction of policy choices, management strategies and cultural responses - not by advanced technology alone... The debate over appropriate policies for guiding the application of ICTs in politics and governance needs to begin in earnest (Dutton 1999: 193).

Thus, the future deployment of ICTs will inevitably be shaped by the manner in which policies set out priorities for their utilisation. Lacking the resources (both technical and financial) to build technological structures from scratch, governments increasingly outsource the provision of the technical delivery of e-government services. This makes the framing of the purpose of technological deployment crucial; guidelines and priorities become embedded within contractual agreements between governments as purchasers and companies as providers of the means for developing e-government. We therefore employ a focus on the ways in which e-government policies have embedded certain assumptions about the future potential of the Internet since the early 1990s.

The electronic face of government: analysing the CyPRG Website Attribute Evaluation System data for North America and Western Europe

Some five years on from the 'arrival' of the Internet, what form does the electronic face of government now take? For the developed nations at least, the issue is no longer whether government is on-line, but in what form? The material presented in this initial section is based on a selective analysis of a large, cross-continent dataset: the CyPRG database. The CyPRG project was set up in 1995 with the aim of evaluating the extent to which governments throughout the world were using their web presence to enhance the two most predicted side effects of e-government: transparency and interactivity. Although there are gaps in the data, those for the year 2000 are the most comprehensive to date (See also the Appendix). We have analysed selected measurements of transparency and interactivity for North America and Western Europe for 2000. Our aim here is to present a broad quantitative overview of the types of user experiences that are actually available when citizens deal with governments in their electronic form. There is much hype and hyperbole surrounding the possible futures for e-government. However, as we shall see, the CyPRG data suggest that though there are significant differences between North America and Western Europe (with the former scoring higher for interactivity and deliberative mechanisms), if current trends continue, the idea that e-government is an inevitable force for democratisation needs to be seriously questioned

The original CyPRG system consists of a 45 point scale for measuring transparency and interactivity, which is applied to government (and some non-government) agency websites. The overview categories are reproduced in Tables One and Two below. (For full details of the individual criteria see CyPRG, 2001a)

Transparency

Transparency measures the effort an agency makes to make information available through its website. The following five categories are divided into 23 separate criteria.

Ownership: a visitor would want evidence that the organization cares about the site.

Contacts/Reachability: a visitor would want to know how and whom to contact with regard to the organization's operations.

Organizational Information: a visitor would want to know about the organization, its structure and operation.

Issue Information: a visitor would want to know about the policy niche of the organization.

Citizen Consequences/Responses: what responses a visitor can or may have to make.

Source: CyPRG (2001)

Table Two: Original CyPRG Interactivity categories

Interactivity

Interactivity measures the ease with which visitors can use information provided on the website. The following five categories are divided into 22 separate criteria.

Security and Privacy: the *more* the site is accessible, the *less* citizens or visitors are obliged to provide personal information in order to easily download or upload material and responses.

Contacts/Reachability: a visitor would want evidence that the organization is willing to receive input at the gateway (the webmaster within the agency) and the senior level.

Organizational Information: a visitor would want to be able to contact members inside the organization easily with a click.

Issue Information: a visitor would want to know how the organization deals with issues in its policy environment.

Citizen Consequences/Responses: a visitor would want to be able to easily follow the issue/organizational operations links with a click into these related sites. Here we place the organizational structure due to its representation of the structure of discretion within an organization.

Source: CyPRG (2001)

Several studies have made selective use of the CyPRG measurements (Demchak et al, 1999; La Porte et al, 1999). There will always be debate over how to quantify website attributes, not to mention disputes over the very nature of such quantitative methods in the first place (for a *qualitative* approach see Chadwick, 2001). However, the advantages of this particular database are that it is reasonably comprehensive and, due to its modular design, relatively flexible. There are, to our knowledge, no other such datasets in existence, and the

measurements used by CyPRG are able to be recombined in various different ways, across different policy sectors, countries, and continents.

We were principally concerned with the opportunities for interaction and democratic deliberation provided by government agency sites, and the extent to which agencies position themselves within a broader, more open community of affected interests and opinion-formers, or 'issue networks', as we have termed them. We were also keen to have as large a dataset as possible for the comparison of North America and Western Europe, which meant removing some of the measurements for which the data was incomplete. Following this we took selected measurements and combined them into the following six categories, designed to give rough measurements of interaction and potential for deliberation. (Full details of the criteria we chose are given in the Appendix):

TableThree:SelectedCyPRGcategoriesforInteractivityandPotentialforDeliberation

Interactivity and Potential for Deliberation

Measures the extent to which citizens can interact with the agency through its electronic face, the extent to which the agency presents itself as part of a wider issue network, and the extent to which the potential for democratic deliberation by citizens is provided by the website.

Basic information about content creators: does the site provide basic contact details for those responsible for the content of the site?

Basic integration with wider issue networks: does the site provide basic contact details of other government and non-government actors which form part of a wider issue network?

Visible citizen consequences: how well-informed would a citizen be about how the work of the agency affects him/her, and how to question agency decisions.

Direct (linked) access to decision-makers: does the site provide direct ('clickable') hyperlinks and email links to the agency's 'real-world' decision makers?

Direct (linked) integration with wider issue networks: does the site provide direct ('clickable') links to other government and non-government actors which form part of a wider issue network?

Direct opportunities for interaction with other users: does the site provide an online issue-related forum for outsider participation such as a discussion board, chat server, or email discussion list?

Source: adapted from CyPRG (2001)

These categories provide us with comparative data across twenty-three national policy sectors for North America (Canada and the United States) and Western Europe, including: Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Liechenstein, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, UK and the Vatican. After removing sectors for which the data was very incomplete, or which are less important (such as 'Libraries' and 'Meteorology'), we were left with figures covering nineteen national policy sectors: Agriculture, Communications, Culture, Defence, Education, Energy, Environment, Executive branch, Finance, Foreign, Government operations (civil service matters, auditing and procurement etc.), Health, Industry and Trade, Interior, Justice, Labour, Science and Technology, Social Services and Transportation and Infrastructure.

Findings

For the purposes of concision, we present radar diagrams for eight major policy sectors below (see Figures One to Eight). All are based on category averages derived from original *binary* scores. For example, in Figure One: Defence, North American agencies scored only 0.27 out of a possible maximum of 1 on the scale for 'Basic information about content creators'. Similarly, in Figure Two: Education, Western European agencies scored only 0.14 out of a possible maximum of 1 on the scale for 'Direct opportunities for interaction with other users'.

From this basic comparative analysis, our findings are strikingly obvious. First, across all policy sectors, the scores for interaction and potential for deliberation are low. Secondly, there are significant differences between North America and Western Europe. Some North American policy sector agencies, such as Finance (Figure Four), Government Operations (Figure Five) and Social Services (Figure Eight), achieve commendable scores, but others, such as Defence (Figure One) and, more surprisingly, Education (Figure Two), exhibit poor levels on our scales. For Western Europe, e-government advocates, or rather those who see it as a force for democratisation, will find the overall picture profoundly depressing, especially given that this data is for the year 2000. Granted, the European figures for the Executive branch are thin, but they still perhaps the most disappointing (Figure Three). There is a heavy contrast between the exemplary North American Social Services (Figure Eight) websites and their equivalents in Western Europe.



Figure One: Defence (2000)



Figure Three: Executive Branch (2000)





Figure Five: Government Operations (2000)







These trends are even clearer if we examine the average scores for each category across all nineteen national policy sectors (see Figure Nine).

Figure Nine: All Selected Policy Sectors (2000)



Of course, there are some limitations to this form of analysis. The website coding techniques may be open to question, especially given that they were designed in 1995, when the Internet, and governments' electronic faces, looked quite different from their present incarnation. The dataset is incomplete and it was sometimes difficult to compare like numbers across regions. It must also be stressed that we are only dealing with the potential for interaction and deliberation. How citizens actually *behave* while online is unknown. Nevertheless, we would argue that these results provide a broad overview of the current state of e-government. A bigger challenge, however, is explaining these phenomena. In the rest of our paper we narrow our focus to include case studies of the development of policy on e-government in the United States, the United Kingdom and the level of the European Union. We start by considering three quite different models of the transformative potential of e-government.

Three models of interaction

In outlining the three models of interaction below, we have been influenced by Kenneth C. Laudon's pioneering work of 1977, *Communications Technology and Democratic Participation*. Laudon argued that 'implicit in the development of certain information technologies are very definite models of democracy which differ considerably from one another' (Laudon, 1977: 14). Steering a path between technological determinism and overemphasising political agency, Laudon maintained that technology 'is a facilitating factor that interacts with existing historical, organisational, and environmental pressures to shape the future.' 'Yet', he wrote, 'it also clear that certain technologies facilitate some goals better than others.' (Laudon, 1977: 19). Laudon developed a threefold typology of technological forms, each of which lent itself to a corresponding form of government. Data transformation technologies such as mainframes and databases were compatible with managerial democracy; mass-participation technologies such as opinion polling and interactive cable TV were suited to populist democracy; and interactive technologies, which, in 1977, meant telephone conference calls, fitted with a 'pluralist' model of democracy.

Although we make use of some of Laudon's insights, especially his description of 'managerial democracy', it is important to highlight where we differ. First, technology has developed considerably since the mid-1970s. Telephone conference calls are being displaced by personal computers linked to the Internet, with its relatively low costs and ease of use. The emerging ubiquity of the Internet makes it a potentially powerful political development, and makes possible the overlapping of the three models of interaction we identify. Secondly, Laudon's typology artificially restricted 'mass' participation to one category - 'populism'. However, mass participation is a characteristic of each of the three models we identify. Thirdly, in Laudon's framework, the managerial model was heavily associated with a 'scientifically-trained elite' at the heart of the US federal government, reflecting Daniel Bell's analysis of the post-industrial society and the role of elite technicians (Bell 1974). In the Internet age the expertise required to operate ICTs has been significantly reduced. While the design and installation of new ICTs undoubtedly requires expert knowledge, their daily operation can now be more easily adapted to pre-existing cultures of governance and individual skill levels. Interest in ICT applications in government has spread well beyond the confines of the 'technocracy'. Fourthly, there have been critical shifts in the values underpinning government in both Britain and the United States since Laudon's work appeared, which can be gathered together under the heading of the 'new public management' (NPM). Whether the advent of the Internet is dismantling the fundamental structures of NPM remains to be seen (Dunleavy and Margetts, 2000), but it seems certain that the use of ICTs in government since the mid-1990s has been conditioned by changes Laudon could not have foreseen.

Finally, Laudon was chiefly concerned with technological forms, while we are concerned with both the forms and the discourses that are used by political actors to legitimise their behaviour. This is a point of methodological significance; the three models of interaction

below are designed as ideal types. They have been constructed following a reading of the existing literature (normative and empirical) on the relationship between ICTs, politics and democratic theory, and they are then used in the main body of the paper to undertake a cross-national comparison of the development of e-government policy in three political systems. Until the late 1990s, this was a relatively restricted field, but many new texts are becoming available each month, although there are very few cross-national comparisons of the kind we undertake. We have attempted to include in these models features which are inherent in technological forms *and* modes of behaviour in citizen-state relationships (for a similar approach, see Hacker, 1996). While we fully appreciate there could be several subvariants of our models, there are always likely to be trade-offs between the benefits of simplicity and concision on the one hand and the dangers of too broad generalisation on the other.

Much of the literature on the relationship between ICTs, politics and democratic theory is of a futuristic, even utopian, bent. The normative-empirical distinction is usually collapsed, as arguments in favour of how the Internet ought to transform government are intertwined with how far matters have or have not progressed. Our threefold typology tries to integrate this, by rendering salient both theory and practice - past, present and future. While this does not immediately square with some existing approaches to modelling in policy analysis, the method we have adopted here allows us to think creatively about the gap between possibilities and practice, potential and reality, that is at the core of our argument that democratic interaction is being sidelined by managerialism.

With these issues in mind, we generated each model by asking six basic questions:

- What role is played by government?
- Who are the principal actors and interests?
- What is the dominant perspective on the flow of information?
- What are the principal mechanisms for interaction between government and citizens?
- What attention is paid to the ability of citizens to interact electronically?
- What is the defining logic, or *raison d'etre* of each model?

Table One, which follows our discussion, provides a comparative summary of the models.

1. Managerial model

In the managerial model of interaction ICTs are largely seen as a quantitative improvement on previous technologies. State services will continue as before but will be made more 'efficient', where 'efficiency' means increased speed of delivery combined with a reduction in costs. ICTs remove some of the 'friction' within state bureaucracies which is identified by governments as a major cause of citizen disquiet. Horizontal flows of information will be improved in order to break down unhelpful departmental boundaries and entrenched vertical hierarchies (Bellamy et al, 1995: 93-4).

For example, Don Tapscott suggested that ICTs:

not only...reduce the costs of government but also radically transform the way government programmes are delivered and the very nature of governance. Internetworked [sic] government can overcome the barriers of time and distance to perform the business of government and give people public information and services when and where they want them. (Tapscott, 1995: 163).

Tapscott saw this as a renewal of established government functions rather than an opening up of citizen access. Thus, the 'seven themes of internetworked government' Tapscott outlined were: administrative renewal (faster, more efficient bureaucracies); integrated digital benefits transfer; integrated digital *access* to government information; government

fostered information initiatives (to establish data-banks of social information); intergovernmental tax filing, reporting and payments processing; national (and global) law enforcement and public safety networks; and government/client communication initiatives (Tapscott 1995: 167-175). Although the last category might plausibly include the notion of better communications from citizen to government, the use of the word 'client' indicates the narrowness of Tapscott's perspective. Thus, ICTs will enhance the delivery of services, with more accurately targeted communication of citizen requests and faster responses, but the democratic possibilities of such communications are generally ignored. Those with the power of decision over IT procurement in government justify public expenditure on information processing on the grounds that it will improve 'service delivery'.

At the centre of the managerial model is a presumption that change is incremental. While ICTs may represent both challenges and opportunities for the practice of governments (their interactions with the domestic economy, and more widely civil society), their basic operational logic remains unaltered. The state's role in the economy is largely unchanged: continuing the neo-liberal hegemony of recent times in much of Western Europe and the United States, the state remains a non-interventionist facilitator of private economic life. The information economy, while changing the types of regulation required (though often merely requiring the expansion of certain regulations into new, technologically-defined areas of economic interaction) does not require a radical rethinking of state activity.

The managerial model treats information as relatively simple and unilinear rather than complex and discursively generated. Information can be 'delivered' and will empower those previously unable to access it. The state is regarded as the authoritative source of information in society. Indeed, it may marginalise alternative providers of information, while seeking to establish certain meanings, certain agendas as 'common-sense' and legitimate. Accessibility, not least of all the skills required to sift and comprehend publicly-available information, are perceived as secondary, 'technical' issues. This a 'push' model of information dissemination; the state will place information in accessible forums and the onus is on the user to access it. The audience are seen as passive recipients rather than interlocutors. State-produced information is here a passive resource to be transferred between nodes in the information network. And while citizens are inescapably part of e-government networks, their role is not as important as the state, which *manages* the activity. Cyberspace becomes 'normalised' into the routines of 'politics as usual' (Margolis and Resnick, 2000).

2. Consultative model

In direct contrast, this is a 'pull' model. Here ICTs facilitate the communication of citizen opinion *to* government. Information is regarded as a resource which can be used to provide 'better' government. By utilising the speed of ICT networks the governments can seek voter opinion on particular issues to guide policy making, discovering what 'real people' think. The consultative model is sometimes presented as facilitating direct access to government, unmediated by 'special interest' groups which distort communication, but it is equally compatible with a group-based approach to politics.

This model encompasses a continuum of consultation, stretching from low-level informationgathering towards (but not finally reaching) a fuller quasi-deliberative level of interaction and consultation. Some consultations are much more than the passive submission of information or opinion and can start to establish the type of interaction often heralded by supporters of e-democracy. Unlike the managerial model, this contains the seeds of greater democratic participation and thus represents a necessary element of a fully developed edemocracy, but it is not sufficient for the attainment of the type of e-democracy implied by our third model (below). It may however represent a transition stage, easing the development of (and supporting the demands for) more participatory models of egovernment. This second model contains some recognition of how scarcity of resources determines access *to* government. Consequently, publicly available computers in libraries and feedback 'booths' in public spaces are a crucial element in the desire to establish links between government and citizen. This approach fits in with established practices such as focus group consultations and opinion polling but aims to increase the sample size to ensure more representative views. Much is made of instant referendums, electronic voting, and the possibility of continuous democracy, leading to several experiments in America, Australia and Britain with 'electronic town halls' or time limited consultations on single issues.

In its more critical manifestations, this model recognises certain endemic problems with the state-citizen relationship. Those who vote in consultative forums, and who contact government with their views, may be self-selected, ICT-literate groups whose views and prejudices may not be representative of citizens as a whole. Indeed, the ability to use technology in the manner proposed may be unevenly spread through government itself as well as civil society. There are also the common problems of direct democracy – notably the difficulty of framing policy alternatives in ways which will solicit broadly comparable (and informed) responses. Agenda management presents a major problem: both government and organised groups may be able to mobilise electronic campaigns to further their own aims, or may only seek consultation in certain policy areas or with certain groups. Indeed, it becomes possible for government to poll relatively small sections of the electorate and, in turn, 'narrowcast' information back. Government may be able to define the interests of a particular group in a particular way, and keep that strategy hidden from other potentially affected interests (Abramson et al, 1988: 49-54; Van De Donk et al, 1995: 24).

As with the managerial model, information is usually regarded as a passive resource. Indeed, frequently the consultative model may only allow inputs which fit within the parameters already set by policy makers. Opinions which question the basis of policy making itself may be regarded as 'ill-informed' or 'ideologically-driven'. Communication by direct question-asking activity is based on the need to generate quantifiable and comparable responses to particular policy innovations.

3. Participatory model

While the first two models of interaction stress the vertical flows of state-citizen communication, the participatory model conceives of a more complex, multi-directional interactivity. It assumes that while the state may facilitate political discussion and interaction, it is but one association among many in civil society. Other sites of political discourse and interaction have emerged (and will continue to emerge) even though the state may remain the principal target of organised political action.

In 1980, Yoneji Masuda produced one of the most wide-ranging statements of this model, suggesting that the 'technical difficulties that until now have made it impossible for large numbers of citizens to participate in policy making have now been solved' (Masuda 1980 [1990]: 83). Thus, since there were no longer practical barriers to citizen involvement, countries embracing the information age could move towards participatory democracy. This led to six basic principles of political participation in an information society:

- 1. All citizens would have to participate in decision-making, or at least the maximum number;
- 2. The spirit of synergy and mutual assistance should permeate the whole system ([where] 'synergy' means that each person co-operates and acts from his or her own standpoint in solving common problems and 'mutual assistance' implies readiness to voluntarily sacrifice one's own interests for the common good, to level out the disadvantages and sacrifices to other persons and/or groups);

- 3. All relevant information should be available to the public (In addition, *people will be expected to provide information voluntarily to contribute to a solution of any question*);
- 4. All the benefits received and sacrifices made by citizens should be distributed equitably among them;
- 5. A solution should be sought by persuasion and agreement;
- 6. Once decided, all citizens would be expected to co-operate in applying the solution (Masuda 1980 [1990]: 84-87).

Widespread participation, Masuda argued, could act as a break on the dissemination of misleading information by the state and large corporations. In a precursor to the claims made for open-source software such as the Linux operating system, the greater the number of individuals involved in the management of the system *through* participation, the less likely it was that information could be captured by monopoly interests.

This model contains a recognition that knowledge is discursive, contingent and changeable - that it emerges through interaction. It has obvious 'utopian' leanings, but at the same time, advocacy of an active civil society need not rest upon a desire to sweep away representative structures. The explosion of interest in 'social capital' during the last ten years has demonstrated how these themes may enter the political mainstream, often in tandem with an argument about the role of the Internet in producing that elusive resource (Putnam, 1994, 2000; Rich, 1999). In the UK, a useful example of this model in action was the Hansard Society's on-line discussion of domestic violence policy, which involved over 200 women in interactive discussion. Many had never used the Internet before, and had accessed the discussion through women's refuges or public libraries (Hansard Society, 2000). And while there were a number of problems with the Public Electronic Network (PEN) in Santa Monica, during the early 1990s it did open up a space for the homeless to organise and find an effective political voice in a mostly affluent community not attuned to their interests (Schalken 2000: 154-168; Schmitz 1997: 87ff).

In the participatory model interaction is regarded as constitutive of democracy itself. Opinion formation and political action based on forums, groups or new 'virtual communities' enlivens and furthers the development of civil society (Rheingold, 1993). As Kenneth Hacker writes, 'Concepts like bandwidth, fast response, personalness, social presence etc. do not explain interactivity. What is most defining about interactivity is how messages are related closely together in a sequence of message exchange'. (Hacker, 1996: 5) The principal focus is on voluntary association and the development of new communities of interest. Here the proliferation of Usenet, bulletin boards, chat-rooms, file sharing and peer-to-peer networking are positive and organic deliberative mechanisms. Importantly, the state will still have to protect liberal-democratic values of free speech and expression that might otherwise be disregarded, while also providing infrastructure and regulation.

There is a common assertion that 'access is enough' and on-line citizens will be able to make use of the information available from non-state sources to bring pressure to bear on government. Furthermore, eventually all ICT-mediated interactions will help to build a new cyber-civil society, which enhances the participatory potential for all citizens. Thus, the current limited set of interactions (typified by the first two models above) are characteristic of a period of transition: the 'real' cyber-society will be participatory in its logic and practice, despite the resistance that may be encountered initially.

A more gloomy prognosis, but one which still holds to the central tenets of this model, views the characteristic trends of post-industrial democracies – fragmentation and single issue politics – as being intensified under the weight of new information networks. But while the 'accelerated pluralism' identified by Bruce Bimber could never be characterised as utopia, it still rests upon the view that popular participation in groups, as citizens come together to assert their demands, is made possible in new and different ways by the Internet. Even if on-line citizen campaigns will occur infrequently, and be dominated by those with sufficient

resources to mobilise, R. D. Arnold's theory of potential information, used to explain the behaviour of members of the US Congress, suggests increasing the pool of publiclyavailable information will force political elites to bow to the pressure of *potential* citizen awareness (Arnold, 1990). As Bimber (1998) puts it: 'The result may be a political system in which issues develop and move more quickly because of the quicker cycle of mobilisation and response, and in which government officials increasingly hear from and respond to new kinds of groups – those without large, stable memberships or affiliations with established institutions.'

	Managerial	Consultative	Participatory	
Role for government	Regulatory; responding to the needs of the 'new economy'; efficient and faster delivery of government information <i>to</i> citizens and 'users'.	Regulatory; responding to needs of societal interests as expressed electronically; <i>better</i> policy provision to citizens and 'users'.	Protector of free speech and rights of expression, but little beyond that; civil society exists away from the state and (will be) mediated electronically.	
Principal actors and interests	Government and its 'customers'; the media.	Government; 'customers'; interest groups	Voluntary associations and interest groups spontaneously interacting within 'cyberspace'; groups use information gleaned through deliberation to influence government.	
Flow of information	Unlinear from government to citizens, but also emphasis on improving flow of information within government.	Unilinear from government to citizens or citizens to government.	Discursive and complex – citizens to citizens, citizens to government, government to citizens	
Principal mechanisms for interaction	On-line tax returns; benefit claims; 'one stop shops'; updating of personal information held by public bureaucracies; government gathering and aggregation of 'market research' data; government provision of information about its activities to media and public.	'e-voting' at elections; instantaneous opinion polling; electronic input from voters and interest groups to government; 'advisory' referendums; 'electronic town meetings'	Autonomous pluralist mechanisms such as discussion lists, Usenet, peer-to-peer technologies, 'cyber civil society'; time and distance become compressed, facilitating increased political participation.	
Ability of citizens to interact	Considerations largely absent.	A 'technical' issue, to be solved by cheaper and more readily available technology.	'Access is enough' to encourage wider political participation.	
Defining logic	'Service delivery' and presentation ('spin')	'Technical accuracy' and improved policy success rate.	'Deliberation' and participation	

Table Four: Three Models of Interaction

The evolution of 'e-government'

Having sketched out three models of interaction, we now turn to discussion of the development of the e-government agendas in the United States, Britain and the European Union. In each case we focus on the key policy statements which have defined the dominant

approach. In the American case we examine documents published by the National Partnership for Reinventing Government, and the General Services Administration. In the British case we focus on material produced by the Cabinet Office, specifically from the office of the E-Envoy and the Central Information Technology Unit. For Europe we focus on documents produced by the European Commission itself and those produced by the Information Society Project Office, the main conduit for advice to the Commission on ICT policy. We are concerned throughout with delineating the evolution of basic underlying assumptions about the use of ICTs at the level of national and, to a lesser extent, supranational government. Although an analysis of local initiatives might reveal different patterns (see Weare *et al*, 1999 and Pratchett, 1999), this is beyond the scope of this article.

The United States

In the United States, the Clinton-Gore administration made many appeals to the transformative power of information technology. In the summer of 2000, the federal government launched the first government 'portal' of its kind, though at the time of writing it represents little more than a Yahoo-style directory rather than the more ambitious government 'gateway' US citizens have been promised. Nevertheless, integrating the gargantuan amount of information, with the emphasis on individual transactions with government, is the culmination of a process which began with the National Performance Review (NPR) of 1993. The application of ICTs was at the heart of the NPR, and its descendant, the National Partnership for Reinventing Government's *AccessAmerica* program of 1997. Both were co-ordinated by the Office of the Vice President, and Al Gore was quick to emphasise how ICTs could be harnessed to the broader objectives of cost-cutting and increases in productivity. Several 'accompanying reports' appeared alongside the main NPR report, and ICTs were considered important enough to warrant this special treatment (National Performance Review (US) (1993b).

It is ironic, but understandable, that the first NPR report contains very little discussion of the role of the Internet. It was only just beginning to capture the political imagination, and was still the preserve of universities and, to a lesser extent, the IT industry. Gore made up for this with the 1997 update on the NPR and *AccessAmerica* (National Partnership for Reinventing Government (US), 1997). Both were unambiguous in their view that the Internet could be used to 'reengineer' the relationship between government and citizens. The aims of the main NPR report of 1993 were explicit:

Our goal is to make the entire federal government both less expensive and more efficient, and to change the culture of our national bureaucracy away from complacency and entitlement toward initiative and empowerment. We intend to redesign, to reinvent, to reinvigorate the entire national government. . . We need a federal government that treats its taxpayers as if they were customers and treats taxpayer dollars with the respect for the sweat and sacrifice that earned them. (National Performance Review, 1993a: Introduction, paras 1 and 10)

Existing government ICTs could be modernised in ways that would allow their inherent properties to be used more intensively. Increased automation was the order of the day: 'As everyone knows', it stated, 'the computer revolution allows use to do things faster and more cheaply than we ever have before. . . [B]y simplifying paperwork and reducing administrative costs, we expect to save \$3.3 billion over 5 years in the cost of administering grant programs to state and local governments.' (National Performance Review (US), 1993a: Preface). But the emulation of private sector management practices was also at the forefront of the program. Government in the 'Information Age', as the report termed it, must adapt in the way that large, vertically-organised corporate bureaucracies had been forced to adapt. The creation of 'entrepreneurial organisations' was dependent upon new working practices. Assisted by the development of ICTs, the aim was to create customer-focused public bureaucracies.

In a moment of clarity, the NPR entered into a potentially radical discussion of the difference between customers and citizens, only to shelve its implications for the remainder of the report, and, indeed, for all such reports since:

By 'customer' we do not mean 'citizen.' A citizen can participate in democratic decision-making; a customer receives benefits from a specific service. All Americans are citizens. Most are also customers. . . In a democracy, citizens and customers both matter. But when they vote, citizens seldom have much chance to influence the behaviour of public institutions that directly affect their lives: schools, hospitals, farm service agencies, social security offices. It is a sad irony: citizens own their government, but private businesses they do not own work much harder to cater to their needs. (National Performance Review (US), 1993a: Section Five, paras 10-11).

Like other statements of this kind, this can be interpreted as a classic piece of NPM sloganeering. It may even be seen as a typical new right critique of the flaws of state intervention. But one of the important implications of the Internet is that it allows interaction between citizens and political elites across the whole government apparatus, not just the legislative branch. This points to a new and different relationship between public bureaucracies and those whom they serve. In the consultative and participatory models outlined above, citizens are able *to be citizens*, not just consumers, in their interactions with the executive branch. They are able to augment the tasks of scrutiny and accountability performed by legislatures. But in one swift move the implications of this distinction were buried.

Individuals were to have influence over government services as customers but not as citizens. The managerial model, with its accommodation of customer feedback as a means of improving government, was positioned at the centre of the NPR. It could have been possible to discuss mechanisms beyond the customer service approach, which might have involved citizens *as citizens* using ICTs to influence policy and service delivery, but this was not considered appropriate by the NPR. The following benefits were offered instead:

Electronic government overcomes the barriers of time and distance to perform the business of government and give people public information and services when and where they want them. It can swiftly transfer funds, answer questions, collect and validate data, and keep information flowing smoothly within and outside government (National Performance Review, 1993b: Executive Summary, para 10).

In a theme that was to find similar expression in Britain, the NPR established the idea of 'virtual agencies' as a means of co-ordinating efforts across a large and rambling administrative machine. In future, customers would not need to have knowledge of the structure of government, but would instead be able to transact on the basis of a number of clearly-identifiable 'service themes' (National Performance Review, 1993b: Section IT01, para 16). These would be based on intuitively-expressed customer demand rather than the producer-driven needs of the agency. Customers would transact with several different agencies without realising it, while those agencies involved would find it easier to share information and make decisions.

How would customers transact with government? The benefits system, which includes the administration of food stamps, unemployment benefit, Medicare, Medicaid, child support and related social security benefits, would shift to a system of electronic transfer. Customer inquiries would be automated or handled more efficiently through the use of call-centres and one-stop shops. Individuals would file their tax returns on-line. Electronic kiosks would be placed in benefits offices and other public buildings, allowing access to government information sites and the submission of electronic forms. Email use would be expanded across the federal government. A national network for 'law enforcement' and 'public safety'

would be established to enable communication within the criminal justice system and emergency services. Businesses would be able to use a new database on international trade. 'Homebuyers' would consult a new environmental database (National Performance Review, 1993b).

It was perhaps understandable that citizen-government interaction, in the form of the consultative and participatory models we identified earlier, should be underplayed in the 1993 report. However, the ways in which these issues were originally framed went on to have a decisive influence long after the popularisation of the Internet. Much that had been proposed was close to being achieved by 1997. Most notable was the establishment of the foundations of an electronic benefits transfer system. By this time, Internet usage had exploded in the United States, assisted by the reduction in costs achieved by the 1996 Telecommunications Act. But the main difference between the Internet and prior technologies - its relatively low costs, ease of access/use, potential for interaction and its fast-approaching ubiquity - were the report's major blind spots (National Partnership for Reinventing Government (US), 1997). Although acknowledgements of the Internet's simplifying logic had taken place, with the establishment of a new White House site, a new emphasis on Internet-based customer interfaces for the retrieval of information held in databases and the role of e-commerce in public procurement, the overall design was strikingly similar to the essentially pre-Internet report of 1993. Despite the 'explosive use and capacity' of the Internet, the 'highlights' of AccessAmerica were the following:

- Seniors will provide facts just once to cover Medicare and all pension programs; payment will, of course, be directed to their account, accessed by a single card that they carry in their wallet or purse.
- Police on the street will get electronic fingerprint checks and criminal records while suspects are in their grasp, not weeks later.
- Parents will check environmental conditions around town before picking out a new house.
- Students will make their application for loans, get their answers, and if approved, receive their funds on-line.
- Communities will seek grants, apply for permits, and file reports electronically.
- Companies seeking export markets for their products will go on-line to a one-stop government shop for export assistance.
- And behind the scenes for all these transactions, the government will be operating an electronic system that, compared to (*sic.*) today's paper-based services, improves privacy and security for individuals (National Partnership for Reinventing Government, 1997: Introduction, para 12).

A theme present in the 1993 report – the need for co-ordination across government – was brought to the forefront of *AccessAmerica* with plans for a new Government Services Information Infrastructure (GSII). Developed by the Government Information Technology Services board (GITS), the GSII is a low-key variation of the intranet concept (National Partnership for Reinventing Government, 1997: Section A15, para 4). It is designed to allow cross-agency collaboration between groups of workers. As we shall see below, the British government took up this idea and developed it more fully.

Progress on the targets set by *AccessAmerica* appears to have been slower than expected. As a consequence, Clinton issued an executive memorandum in December 1999, calling upon agency heads to accelerate and intensify the use of ICTs. Of particular concern was the failure to introduce co-ordinating mechanisms that would make it easier for customers to access services irrespective of the originating agency - a principle which found expression in the *FirstGov* portal, launched in September 2000 (National Partnership for Reinventing Government, 2000). *FirstGov* is at once significant and unremarkable. The portal concept, which was seen as the holy grail for the private Internet sector in the mid-1990s, is now commonplace. There is, therefore, little novelty in applying this concept to government websites. However, the *FirstGov* approach, and its corresponding project in the UK, which

we discuss below, constitutes an intensification of managerialism. It is without doubt the nearest any government has got to presenting an easily navigable interface to public services, with a distinct emphasis on the individual consumer. Each of the ways in which it is possible to transact with government is laid out in celebratory list fashion, with four organising sections: 'Shop Online', 'Apply, File, Register Or Print Forms Online', 'Check Performance Online' and 'Let the Government Know'. The last of these encourages customer-type feedback. But even this is qualified by the statement that 'we are unable at this time to respond directly to any emails.' (*FirstGov*, 2000). *FirstGov* is more important for what it represents in the broadest sense - the ubiquity of the Internet and its associated protocols, file formats and 'look and feel' as a medium.

Britain

The NPR's framing of ICTs in terms of their contribution to 'service delivery' and little else has had a profound impact upon developments in the US and beyond, but especially in Britain. The United States government was a good five years ahead of the UK when it came to positioning ICTs at the centre of a concern to energise public administration.

In Britain, the Labour government claims that it is developing a 'new' approach to statecitizen interaction. In fact it owes much to the previous Conservative government's green paper of November 1996 - Government Direct. This explicitly framed the approach in managerial terms when it set out three basic aims: 'to provide better and more efficient services to business and to citizens; improve the efficiency and openness of government administration, and secure substantial cost savings for the taxpayer' (Central Information Technology Unit, 1996: para 4.1). As with the US NPR report of 1993, the new form of statecitizen interaction was to be based on the following: 'providing information, collecting taxes, granting licenses, administering regulations, paying grants and benefits, collecting and analysing statistics, and procuring goods and services.' (Central Information Technology Unit, 1996: para 1.4). The Conservatives' green paper was also a primary definer of a peculiar, but strategic, conflation of the terms 'citizen', 'business' and 'customer'. In an interesting formulation, which is at the centre of the managerialism we identify, it spoke of the aim 'to make electronic direct delivery of services the preferred option for the majority of government's customers (both citizens and businesses).' (Central Information Technology Unit, 1996: para 5.2) 'Citizens' and 'businesses' both become 'consumers' of government services.

Several of the dominant themes of NPM were in evidence, notably the need for 'efficiency through rationalisation' and cost-cutting, but these existed in tension with optimistic statements about the potential for ICTs to provide 'extra connections', coherence and coordination across government. Government emerges as an important provider of information - mainly to companies, although the Major government's 'Citizen's Charter' program, designed to make public service providers more accountable, had obvious affinities with the new medium of the Internet. (Central Information Technology Unit, 1996: paras 6.12-6.18). Only one sentence in the whole document (which runs to some thirty-eight pages in the downloadable version) makes direct mention of how ICTs might provide for greater citizen influence on policy-making: 'Email will also make it easier for people to contribute views to the policy-making process'. (Central Information Technology Unit, 1996: para 9.4). Elsewhere the dominant discourse remains managerial.

When Labour came to power, most of the Conservatives' plans were incorporated into the *Modernising Government* white paper of early 1999. There were important shifts in emphasis, as themes such as 'joined-up government' became central to the new vision (though even that can be found in the older proposals). But the dominant theme of individual consumers and 'business' benefiting from improved service delivery was retained. Again, the principal framework of the white paper is established by an emphasis on 'modernisation', 'efficiency' and 'quality':

This Government believes in the public service and public servants. But that does not mean the public service at any price. The British public has grown accustomed to consumer choice and competition in the private sector. If our public service is to survive and thrive, it must match the best in its ability to innovate, to share good ideas, and to control costs, Above all, the public service must deliver efficiently and effectively the policies, programmes and services of government. (Cabinet Office (UK), 1999: section 4, para 1)

The key aim here was for government to emulate those private sector practices which involve innovative use of ICTs in information and 'knowledge management'. Government becomes a 'learning organisation' (Cabinet Office (UK), 1999: section 5, para 2). Internet and internal networking technologies, such as the Government Secure Intranet (GSI) have the potential to integrate a diverse range of information sources and improve the 'business of government' by bringing departments together in 'on-line meetings and discussion groups' (Central Information Technology Unit, Cabinet Office (UK) 2000b: 21). It is not without significance that the UK Government's proposed definition of e-commerce, submitted to the OECD's definition working group, includes both private and public sector transactions (Performance and Innovation Unit (UK), 1999: section 3, para 4).

In the section on Information Age Government, which discusses the uses to which information technologies might be put, the following list appears:

IT will:

- make it easier for business and individuals to deal with government.
- enable government to offer services and information through new media like the Internet or interactive TV.
- improve communications between different parts of government so that people do not have to be asked repeatedly for the same information by different service providers.
- give staff at call centres and other offices better access to information so that they can deal with members of the public more efficiently and more helpfully.
- make it much easier for different parts of government to work in partnership: central government with local authorities or the voluntary sector; or government with third party delivery channels such as the Post Office or private sector companies.
- help government to become a learning organisation by improving our access to, and organisation of, information. (Cabinet Office (UK), 1999, section 5, para 5).

With the possible and partial exception of the last category of benefits, these all stand squarely within the managerial model of interaction. The last point hints at some consultation, but still regards information as being 'accessed', rather than developed through deliberation. Businesses and citizens as consumers will, by 2002, be able to 'transact' with government in a number of ways: they will book driving tests, look for employment, submit tax returns, get advice about benefits and health, use the new National Grid for Learning, apply for career development loans and grants, and receive payments from government for 'the supply of goods and services'. (Cabinet Office (UK), 1999, section 5, para 11). But citizens as political participants will be able to do very little. They hardly appear in the white paper. Indeed, the role of research and assessment is accorded considerably more weight in the section on policy making than any attempts to use ICTs to consult with citizens. And nowhere do attempts to consult directly with the pubic through electronic networks appear as a path of possible development. While such developments as the People's Panel (a 5,000 strong representative group regularly polled by MORI on behalf of government) (Cabinet Office (UK), 1999, section 3, para 7) may look like a move in the direction of participatory models of interaction, the characterisation of its members as 'customers' of public services is significant, as is the fact that none of the People's Panel consultations have occurred via the Internet.

By the time of *E-Government* – the most coherent statement to date, it proved relatively straightforward to frame ICT applications in terms of 'better services for citizens and businesses and more effective use of the Government's information resources'... along with 'the application of e-business methods throughout the public sector' (Central Information Technology Unit, Cabinet Office (UK), 2000b: 1). There are merely two rather vague references to consultative and participatory possibilities (in a document which runs to thirty-four pages). There will be 'greater democratic participation and openness' (Central Information Technology Unit, Cabinet Office (UK), 2000b: 6) and a 'better informed and more participative democracy through electronic consultation and better responses to feedback' (Central Information Technology Unit, Cabinet Office (UK), 2000b: 8). The mechanisms through which this might be achieved are left undefined. This stands in stark contrast to the relatively detailed proposals for interaction with 'business'.

The vision of electronic service delivery as a fusion of public and private within the Modernising Government white paper appears to have been overlooked by many when it first appeared. It was blandly stated: 'We are talking to banks, the Post Office, supermarkets, accountants, interactive broadcasting companies, the information technology industry and others about how they can be partners in service delivery'. This turns out to have been a crucial foundation of the government's plans to develop a multi-purpose portal designed to integrate departments and services and present a unified, user-friendly 'frontend' accessible by various means, including interactive digital television, public kiosks and WAP or GPRS mobile devices (Central Information Technology Unit, Cabinet Office (UK) 1999; 2000b). The UK government lags behind both the private sector and the United States federal government in its development of the portal concept. While the US FirstGov site went live in September 2000, the UK still awaits its own version, which is being developed in partnership with BT (Cabinet Office (UK) Press Office, 2000). Matters were not helped by the resignation of the 'e-envoy', Alex Allan, in early September 2000. Yet the portal concept retains its centrality as a means of simplifying user access and providing virtual 'joined-up government'.

This strategy has been made more achievable through the new 'interoperability' brought about by the use of eXtensible Markup Language (XML) – a new way of handling data which enables cross-platform integration within government and less troublesome integration with the wider Internet (Central Information Technology Unit, Cabinet Office (UK), 2000c; Hewitt, 2000; McGill, 2000). The adoption of XML is a firm indication of the paradigm shift in the use of ICTs by governments, since it acknowledges that the web-browser and the Internet, with their associated standards, protocols and file formats, brought together under the umbrella of the World Wide Web Consortium (W3C), should form the foundation of government ICT policy for the foreseeable future. CITU's documentation on interoperability makes it explicit, for the first time in British government, that the most popular ways of transferring data across the Internet – from graphics to video and sound – should be used by government from now on. The days of byzantine tailor-made systems which rapidly outdate are perhaps coming to an end. One of the reasons why the marginalisation of alternatives is to be taken seriously is due to the fact that now, more than ever, the possibility of easily adapting technology to energise citizenship is within the grasp of most developed states.

The likely fusion of public and private, represented by the all-purpose portal approach, makes it even more likely that the managerial model as we define it will continue to be dominant. It might be objected that managerialism does not involve a consumer-driven approach, but this is not necessarily the case. As Christopher Pollitt's study demonstrates, it is the combination of internal organisational efficiency combined with a 'customer-focus' which characterises the approach (Pollitt, 1993). We could add to this concoction the recognition by governments throughout the world that the increasing importance of the Internet requires new media management strategies in order to control the content published on behalf of government. This concern features prominently in the 1999 *Portal Feasibility Study*, carried out for CITU by PA Consulting, a multinational 'management,

systems and technology consultancy' (Central Information Technology Unit, Cabinet Office (UK) 1999). In the UK, the recent relaunch of the prime minister's site can be seen as a direct response to the notable success of the Clinton Presidency's personalised approach to the White House website, one of the most popular federal government sites (Chadwick, 2001).

As British government comes to depend more and more on commercial interests, not only for the technological infrastructure, but also the *content* and 'branding' of its Internet presence, and as the media management strategies which have intensified over the last ten years in liberal democracies spill over (albeit in different forms) to the Internet, the space for political innovations along the lines of the consultative and participatory models we identify will inevitably be squeezed.

The European Union

The US-Britain axis has undoubtedly led the way in e-government (with some parallel developments in Australia), but the European Commission has also taken an interest. Certainly, there are some difficulties involved in a comparison between national policy initiatives and those emanating from a supranational entity such as the EU. Nevertheless, it is important to include the European dimension not only because these developments have vital domestic policy implications for all member states, but also because the EU is currently working towards the integration of the ICT networks of member states with its own structures under the TESTA II initiative (*Trans-European Services for Telematics Between Administrations*). It is anticipated that the British government's Intranet will be connected to the TESTA network, for example. (Central Information Technology Unit, Cabinet Office (UK), 2000b: 22).

European initiatives on ICTs have been greatly influenced by the report from the High-Level Group on the Information Society (chaired by Martin Bangemann), delivered to the European Council in 1994 (and unanimously adopted on 25th July that year). Stressing the market driven character of the information economy, the Bangemann Report listed 'ten applications to launch the information society': teleworking; distance learning; a network for universities and research centres; telematic services for small and medium sized enterprises; road traffic management; air traffic control; healthcare networks; electronic tendering; a trans-european administration network; and city-information highways (European Council 1994). Not only does it make little mention of democracy, the report quite explicitly 'urges the European Union to put its faith in market mechanisms as the motive power to carry us into the Information Age' (European Council 1994: 2). It also silenced, through exclusion, labour unions, cultural and academic institutions and social movements among others (Kaitatzi-Whitlock 2000: 53/54). Where member states' governments or the Union's own agencies appear, they are regarded as service providers to the private sector, and despite some moves away from this exclusively business oriented agenda, the report largely set the parameters of early debates at the EU level.

In February 1995 the European Commission convened the advisory Information Society Forum (ISF) (Information Society Forum 1996: 2). Despite the Forum's first annual report being entitled 'Networks for People and their Communities', only one of the working groups involved considered the 'improvement of democratic structures'. It concluded that 'the development of networks and operating systems must ensure all citizens, regardless of geography, social or economic status, have the opportunity to *participate by providing basic services* which address the needs of all sections of society' (Information Society Forum 1996: working group 2, report summary, emphasis added). The unusual notion that (democratic) participation merely involves the consumption of services firmly locates the working group's position within our managerial model.

Any notion that ICTs might be used to enhance democratic deliberation or accountability is also absent from the second ISF annual report (Information Society Forum 1997). This was

also evident in the European Ministerial Conference's declaration appended to the report. Of the 68 interlinked (and numbered) statements, only one (number five) makes mention of democracy: 'Global Information Networks contribute to democracy by improving communication between citizens and their administrations and *facilitating active participation in the democratic process*' (Information Society Forum 1997: 62, emphasis added). The Ministers meeting in Bonn in July 1997 was mainly occupied with the promotion of the information economy and its support services. The lack of interest in the democratic potential of ICTs is replicated in the 'User's declaration' also appended to this report. Here 'participation' is assumed to be participation in the market and economic relations, not in politics. While governmental efficiency and service delivery are highlighted, these users, at least, have no interest in democratic deliberation (Information Society Forum 1997: 69-73).

The dominant emphasis on the information economy is also evident in the only Green Paper from the Commission to (indirectly) consider e-government. Although it largely focuses on accessing and using public sector information, the paper also includes one short section on Electronic Government (European Commission 1998: chapter II). Within this subsection the paper delimits three main functions: Information services to retrieve sorted and classified information on demand: Communication services to interact with individuals (private or corporate) or groups of people (e.g. via e-mail or discussion forums); Transaction services to acquire products or services on line or to submit data (e.g. government forms, voting) (European Commission 1998: chapter II). Leaving aside the notion that voting is merely a form of data submission, it is implied that ICTs might be used for citizen-government interactions that expand on mere information delivery and retrieval. But in the short discussion of transaction services the report returns to an emphasis on form submissions and the accessibility of public information. In its response to the Green Paper, the ISF notes its desire to ensure access to 'vital information', which lies at the centre of its declarations regarding the construction of an 'informed democracy' (see for instance Information Society Forum 1998a; 1998b). However, the response makes no significant intervention regarding the provision and expansion of the transaction services which would most likely start to deliver a more developed form of e-democracy (Information Society Forum 1999b).

In its most recent annual report, the ISF stressed a civil rights approach to information access and democracy (information Society Forum 1999a). Information needs to be conceived of as a 'public good', allowing citizens unrestricted access to 'vital information'. Having continually stressed the 'European Way' to an information society, the report concludes that the ISF

considers "politics" as the empowerment of citizens to organise and influence affairs according to mutually acceptable ethical principles. This is, for citizens, the guardian of collective interests, including welfare and the social values of democracy... [T]he European Way implies the primacy of politics - the art of striking a balance among *all* the people's interests - over economics alone (Information Society Forum 1999a: 45).

It remains to be seen whether this latter-day reintegration of democratic issues into the forum's ideas about an information society will be enough to shift actual practices away from a purely managerial model of e-democracy.

Elsewhere in Brussels, the European Commission's Directorate-General for Employment, Industrial Relations and Social Affairs convened a high-level expert group in 1995, which delivered its final report in April 1997 (European Commission 1997). Given that the group was reporting to this Directorate-General, it is not surprising that it emphasised the notion of an information *economy*. However, it does include a final (twelfth) set of policy recommendations on the theme of 'Transparency and Democracy'. Issues of service provision and access crop up elsewhere in the report's recommendations but in the final section the group turned to 'maintaining pluralism' and 'A democracy project' for the European Union. Although this initially takes the form of concerns over media ownership and control, the authors also stressed that access to information is not only uneven but it is not *sufficient* for the immediate development of a participatory democracy. This led the group to offer a final set of policy recommendations:

To strengthen democratic development within the IS [information society] the EU should implement a democracy project. The objectives would be to reveal how ICTs can:

- step up the interaction between politicians and citizens and increase the latter's participation in political debate and decision-making;

- clarify how issues relating to human rights, xenophobia, social values, etc. should be approached in the IS;

- improve our understanding and the transparency of the democratic process in both national and EU institutions (European Commission 1997: 51/52).

Despite being the last recommendation of the report, this putative democracy project finally reveals an imagined e-democracy beyond the largely managerial suggestions that had typified the EU's policy.

Building on this recommendation, the European Commission recently called for *eEurope: An Information Society for All*' (European Commission, 1999). Managerialism remains dominant, but is no longer the only aspect of e-government to be included. There are references to the need to go 'beyond simply publishing legislation and white papers on the web' and to 'establish a discussion and feedback forum' (European Commission 1999: 16). But while overall the Commission's document represents a hybrid mix of managerial and consultative models, it remains managerial in most aspects, focusing clearly on the 'new economy' and global competitiveness (European Commission, 1999: 6). Indeed, in the latest update on the *e*Europe strategy, any concern for e-democracy has entirely evaporated, leaving a wide range of e-commerce and regulatory activities as the exclusive thrust of the project (European Commission 2000). The newly constituted Information Society Directorate-General has yet to examine these issues, although a number of reports have been issued on telecoms regulation, and intellectual property. As in America and Britain, the managerial model of e-government is the focus for activities, and other possibilities are ignored or rendered invisible.

Conclusions

Given the diverse range of interactive behaviour now made possible by ICTs, the absence of the consultative and participatory models in current proposals at the national level is striking.

It might be argued that the consultative and participatory models we identify are not the domain of executives but of legislatures, and that citizens might look to Congress and Parliament (even the relatively weak European Parliament) to fulfil these roles. But if the problem is defined in a different way, it is less convincing. The power asymmetry that exists between executives and legislatures (particularly in Britain and the level of the EU), means that the latter are not likely to significantly increase their power and influence through the use of ICTs. Executives are more likely to compromise the potential of ICTs to be used to reconfigure governance. Technological developments make it possible to deliver managerial efficiency as well as increased democratic influence. E-government makes it possible to blur the distinctions between executive and legislative functions by potentially allowing citizens *as citizens* to have direct political influence upon public bureaucracies in historically unprecedented ways. It is also possible, of course, that the managerial model's notion of the citizen-consumer may be perfectly acceptable to those who have interests other than politics.

It is crucial to stress here that the managerialism we identify is perfectly capable of straddling different administrative cultures. The emergence of the NPM in Britain and, to a lesser but still important extent in the United States, may be viewed as a solution to longperceived problems with the 'efficiency' of public bureaucracies, and ICTs have been seen as an important component of those changes. But computers have been seen as solutions to the problems of the public sector since the emergence of the first mainframe systems of the 1960s. Equally, if a new 'digital state paradigm' is to replace NPM, as Patrick Dunleavy and Helen Margetts have recently suggested (2000) then its characteristic features are still likely to be managerial and not consultative or participatory. Even if a 'digital state' emerges, there are likely to be significant problems with injecting citizen participation into policymaking. Many of these difficulties are independent of external factors like the 'digital divide', but are determined by the rather old-fashioned vagaries of competitive elitism in liberal democracies. Individuals may get better service as consumers from their governments, but as far as the possibilities of interactivity that are represented by the Internet are concerned, this should be seen as the bare minimum. As Kenneth Hacker has argued, electronic democratisation is the 'enhancement of a democracy already initiated, with new communication technologies in ways that increase the political power of those who usually have minimal roles in key political processes. We assume that such democratisation brings new people into power rather than granting additional power to those who are already empowered.' (Hacker 1996, p. 2)

However, as the example of Santa Monica's PEN project suggests, there may be greater possibilities for the development of participatory models of interaction at the local level rather than the national. Certainly, where virtual communities have been established on the basis of co-location the participatory model can begin to emerge. More recently the *Phoenix-at-your-fingertips* project also has endeavoured to establish a localised political forum mediated by ICTs with some limited success (Wilhelm 2000: 132-138). However, these and other experiments have taken a considerable time to widen involvement (even marginally) in local politics, and they have revealed the resistance in local government to these forms of direct citizen participation. Elsewhere groups have been more concerned to develop localised public spaces *autonomous* from government (local or national). Successful projects like Minnesota E-Democracy have deliberately *not* sought to interact with government, but rather to promote an independent public sphere (Dahlberg 2001). Thus, while interesting in themselves, the difference in scope and aims of many of these projects offers little encouragement for the swift development of participatory e-government at national level.

The risk-averse character of much government technology procurement should not be discounted as an explanation for the divergence between local and national levels. In a number of cases (especially in the UK where some high-profile ICT-projects have gone over-budget and are yet to deliver the improvements in service originally promised) the utilisation of new ICTs by central government departments has not proved an unalloyed success. The move to depress expectations may reflect this experience alongside the limited interest that private sector contractors have in notions of participation. Contractors in normal circumstances work with a consumer model of interaction because that is their business, and they bring this perspective to their work for government (Naughton, 2001).

Indeed, it has before been demonstrated that the adoption of new information technology tends to reinforce pre-existing power inequalities, both within government, and between government and citizens (Danziger et al, 1982). In the UK, several authors have argued that a close-knit policy community has heavily influenced decisions on the use of computers in government since the 1980s, with the result that service delivery rather than more democratic considerations has prevailed (Bellamy et al, 1995; Pratchett, 1995, 1999). Refusal to take citizen interaction seriously seemingly starts at the level of party organisation. Research undertaken in 1998 discovered that British party websites 'contain only limited opportunities for interactivity' (Gibson and Ward, 1998: 31). If a significant objective of any (British) party is to present itself as a 'government-in-waiting', it should be

no surprise that once elected, party elites are relatively uninterested in exploring the interactive potential of the Internet. At a time when the commercial world is realising the possibilities of on-line community-building through interactivity in order to boost sales, it is significant that most parties (and ultimately governments) in the developed world have been slow to adopt this strategy (Margolis et al, 1997, 1999).

The claims made for democracy in the information age, the manner in which governments interact with citizens, can go either way. Clinton called for each agency to make its officials more accessible through publication of email addresses which could be used for questions and comments. At the same time, the National Science Foundation was charged with conducting a year-long feasibility study of 'on-line voting' (Office of the President, Press Secretary (US), 1999). Further experimentation with on-line participation has been suggested by the President's Information Technology Advisory Committee, though it has to be said that this is just a small part of a report which has an overwhelming focus on using IT to improve the *internal* management of government information (President's Information Technology Advisory Committee, Secretary Advisory Committee, 2000). Indeed, as our analysis of the CyPRG data shows, the outlook for the United States is much more promising than it is for Western Europe.

While the possibility for increased participation is evident, to make the consultative and participatory models of interaction the characteristic manner in which citizens and states interact will take a radical reconfiguration of existing policy. So long as the managerial model continues to frame the discussion of e-government, the recognised possibilities will be limited to those which broadly accord with this model. As Michael Margolis and David Resnick conclude in their sceptical exploration of the 'cyberspace revolution' in politics, although the Internet may present a challenge, national governments still enjoy 'deep reservoirs of power and legitimacy... [they] will meet the challenges [of the Internet] and incorporate solutions within the existing structures of governance' (Margolis and Resnick 2000: 209). As our analysis of the evolution of 'e-government' policy reveals, not only do achievements to date fall short of anything approaching 'electronic democracy', the policy frameworks we have analysed indicate that this was always likely to be the case.

Appendix: Analysing the CyPRG database

The individual measurement descriptions are taken from the dataset. The clustered category descriptions are ours. All measurements used in our analysis are binary. In other words, the presence or absence of a particular feature scores a 1 or a 0 respectively. Thus, maximum average scores will always be 1.

1. Individual coding criteria: Interactivity and potential for deliberation

Coding criteria: Interactivity and potential for deliberation

Measures the extent to which citizens can interact with the agency through its electronic face, the extent to which the agency presents itself as part of a wider issue network, and the extent to which the potential for democratic deliberation by citizens is provided by the website.

Basic information about content creators:

T1a: provides email address to person responsible for both content of the site and technical support for the site

T1b: provides email address to someone solely responsible for technical support for the site

T1c: provides email address to someone solely responsible for content of the site

Basic integration with wider issue networks:

T2a: provides other issue-related government addresses

T2b: provides non-issue-related other government addresses

T2c: provides issue-related other non-governmental information source

T2d: provides reports, research, laws, and regulations in easily readable format on screen

T2e: provides a searchable index for archived newsletters, laws, regulations, and requirements

Visible citizen consequences:

T3a: provides in depth explanations of requirements imposed on citizens resulting from agency activities

T3b: provides instructions on how to complete these actions

T3c: provides instructions for appeal process for decisions or address of an ombudsman inside agency

Direct (linked) access to decision-makers:

I1a: provides email link to webmaster

I1b: provides email link to senior agency official

I1c: provides email link to a number of agency employees

Direct (linked) integration with wider issue networks:

I2a: provides link to outside issue-related government addressesI2b: provides link to outside non-issue-related government addressesI2c: provides link to issue-related outside non-governmental information sources

Direct opportunities for interaction with other users:

I3a: provides an online issue-related forum for outsider participation such as chat lines, and listserves.



2. Average interactivity and potential for deliberation scores across all categories and all policy sectors

3. Table of results

	Basic information about content creators	Basic integration with wider issue networks	Visible citizen consequenc es	Direct (linked) access to decision- makers	Direct (linked) integration with wider issue networks	Direct opportunities for interaction with other users	No. of Agenci es	Average sector scores
North America								
Agriculture	0.50	0.77	0.56	0.80	0.69	0.44	18	0.62
Communications	0.56	0.91	0.63	0.81	0.89	0.78	9	0.76
Culture	0.33	0.50	0.27	0.57	0.40	0.30	20	0.39
Defense	0.27	0.71	0.63	0.46	0.38	0.19	16	0.44
Education	0.42	0.75	0.75	0.33	0.42	0.25	4	0.49
Energy	0.37	0.90	0.67	0.73	0.83	0.50	10	0.67
Environment	0.28	0.83	0.61	0.61	0.89	0.67	6	0.65
Executive	0.44	0.87	0.33	0.22	0.67	0.33	3	0.48
Finance	0.11	0.83	0.59	0.68	0.81	0.86	21	0.65
Foreign	0.78	0.93	0.72	0.67	0.89	0.67	6	0.78
Government Operations	0.69	0.91	0.69	0.89	0.87	0.67	15	0.78
Health	0.46	0.82	0.67	0.36	0.72	0.54	13	0.59
Industry & Trade	0.59	0.89	0.65	0.74	0.81	0.58	26	0.71
Interior	0.57	0.87	0.65	0.65	0.72	0.50	20	0.66
Justice	0.51	0.81	0.74	0.69	0.75	0.66	29	0.69
Labor	0.67	0.89	0.76	0.48	0.52	0.29	7	0.60
Science & Technology	0.72	0.95	0.64	0.79	0.87	0.85	13	0.80
Social Services	0.60	0.84	0.71	0.64	0.73	0.93	15	0.74
Transportation & Infrastructure	0.42	0.84	0.67	0.65	0.88	0.69	16	0.69
North America Averages	0.49	0.83	0.63	0.62	0.72	0.56		0.64

Western Europe								
Agriculture	0.20	0.70	0.26	0.51	0.64	0.06	32	0.39
Communications	0.31	0.66	0.25	0.51	0.61	0.12	17	0.41
Culture	0.25	0.63	0.29	0.49	0.58	0.00	24	0.37
Defense	0.22	0.65	0.30	0.42	0.60	0.05	20	0.37
Education	0.22	0.72	0.38	0.51	0.68	0.14	29	0.44
Energy	0.33	0.60	0.21	0.58	0.50	0.00	8	0.37
Environment	0.25	0.78	0.37	0.42	0.67	0.25	20	0.46
Executive	0.29	0.57	0.20	0.43	0.52	0.12	34	0.35
Finance	0.29	0.63	0.41	0.44	0.55	0.13	39	0.41
Foreign	0.23	0.88	0.35	0.42	0.88	0.09	23	0.47
Government Operations	0.40	0.68	0.33	0.50	0.60	0.20	10	0.45
Health	0.15	0.58	0.31	0.41	0.51	0.00	25	0.33
Industry & Trade	0.15	0.60	0.26	0.33	0.51	0.09	57	0.32
Interior	0.23	0.63	0.36	0.31	0.51	0.08	36	0.36
Justice	0.26	0.72	0.46	0.46	0.59	0.10	29	0.43
Labor	0.22	0.68	0.45	0.37	0.61	0.06	17	0.40
Science & Technology	0.16	0.67	0.27	0.44	0.58	0.13	15	0.37
Social Services	0.21	0.69	0.38	0.44	0.61	0.18	28	0.42
Transportation & Infrastructure	0.30	0.66	0.28	0.46	0.59	0.11	18	0.40
Western Europe	0.25	0.67	0.32	0.45	0.60	0.10		0.40

Bibliography

Secondary sources

Abramson, J. B., Arterton, F. C. and Orren, G. R. (1988), *The Electronic Commonwealth: The Impact of New Media Technologies on Democratic Politics* (Basic Books, New York).

Arnold, R. D. (1992), *The Logic of Congressional Action* (Yale University Press, New Haven). Barber, B. (1997), 'The New Telecommunications Technology: Endless Frontier or the End of Democracy' *Constellations* 4 (2), pp. 208-228.

Bell, D. (1974) *The Coming of Post-Industrial Society* (Heinemann Educational, London). Bellamy, C., Horrocks, I. and Webb, J. (1995), 'Community Information Systems:

Strengthening Local Democracy?' in Van De Donk, W. B. H. J., Snellen, I. Th. M. and Tops, P. W. (eds), *Orwell in Athens: A Perspective on Informatization and Democracy* (IOS Press, Amsterdam, 1995), pp. 79-95.

Bellamy, C. (2000), 'Implementing Information Age Government: Principles, Progress and Paradox' *Public Policy and Administration* 15 (1), pp. 29-42.

Bellamy, C and Taylor, J.A. (1998), *Governing in the Information Age* (Open University Press, Buckingham).

Bimber, B. (1998), 'The Internet and Political Transformation: Populism, Community and Accelerated Pluralism' *Polity* 31 (1), pp. 133-160.

Chadwick, A. (2001), 'The Electronic Face of Government in the Internet Age: Borrowing from Murray Edelman' *Information, Communication and Society* 4 (3).

Dahlberg, L. (2001) 'Extending the Public Sphere through Cyberspace: The Case of Minnesota E-Democracy' *First Monday* 6 (3), available at

<http://firstmonday.org/issues/issue6_3/dahlberg/> (last accessed March 7 2001). Danziger, J. N., Dutton, W. H., Kling, R. and Kraemer, K. L. (1982), *Computers and Politics: High Technology in American Local Governments* (Columbia University Press, New York).

Demchak, C. C., La Porte, T. M and Friis, C. (1999), "Webbing Governance: National Differences in Constructing the Public Face," in Garson, G. David (ed), *Handbook of Public Information Systems*, (Marcel Dekker Publishers, New York)

Dunleavy, P. and Margetts, H. (2000), 'The Advent of Digital Government: Public Bureaucracies and the State in the Internet Age', Paper delivered at the 2000 Annual Meeting of the American Political Science Association, Washington, D. C., August 31-September 3, 2000.

Dutton, W. H. (1999), Society on the Line: Information Politics in the Digital Age (Oxford University Press, Oxford).

Gibson, R. K. and Ward, S. J. (1998), 'UK Political Parties and the Internet: "Politics as Usual" in the New Media?' *Press/Politics* 3 (3), pp. 14-38.

Hacker, K. L. (1996), 'The Role of the Clinton Whitehouse in Facilitating Electronic Democratization and Political Interactivity', paper presented to the Political Communication division of the Speech Communication Association, November, available at <http://web.nmsu.edu/~comstudy/pc1.htm> (last accessed June 20, 2001).

Hill, K. A. and Hughes, J. E. (1998), *Cyberpolitics: Citizen Activism in the Age of the Internet* (Rowman and Littlefield, London).

Hoff, J., Horrocks, I. and Tops, P. (eds) (2000), *Democratic Governance and New Technology: Technologically mediated Innovations in Political Practice in Western Europe* (Routledge, London)

Kaitatzi-Whitlock, S. (2000) 'A "redundant information society" for the European Union?' *Telematics and Informatics* 17, pp. 39-75.

Kamarck, E. C. and Nye, J. S. (eds) (1999), *Democracy.com? Governance in a Networked World* (Hollis Publishing Co., Hollis, NH).

Laudon, K. C. (1977), *Communications Technology and Democratic Participation* (Praeger, New York).

La Porte, T. M., de Jong, M. and Demchak, C. C. (1999), 'Public Organizations on the World Wide Web: Empirical Correlates of Administrative Openness', paper presented at the National Public Management Research conference, December 1999. Available at <http://www.cyprg.arizona.edu/publications/correlat.rtf> (last accessed August 2, 2001. Margolis, M., Resnick, D. and Tu, C. (1997), 'Campaigning on the Internet: Parties and Candidates on the World Wide Web in the 1996 Primary Season' *Press/Politics* 2 (1), pp. 59-78.

Margolis, M., Resnick, D. and Wolfe, J. (1999), 'Party Competition on the Internet in the United States and Britain' *Press/Politics* 4 (4), pp. 24-47.

Margolis, M. and Resnick, D. (2000), *Politics as Usual: The Cyberspace "Revolution"* (Sage Publications, Thousand Oaks).

Masuda, Y. (1980), *The Information Society as Post-Industrial Society* (Institute for Information Society, Tokyo [reprinted as: Masuda, Y. (1990) *Managing in the Information Society: Releasing Synergy Japanese Style* (with a foreword by Ronnie Lessem) Basil Blackwell, Oxford].

Margetts, H. (1998), Information Technology in Government: Britain and America (Routledge, London).

McGill, S. (2000), 'eXtensible Is So Comprehensible', *Computing* September 14, pp. 53-54.

 Pollitt, C. (1993), Managerialism and the Public Services (Blackwell, Oxford, second edition).
 Pratchett, L. (1995), 'Democracy Denied: The Political Consequences of ICTs in UK Local Government' in Van De Donk, W. B. H. J., Snellen, I. Th. M. and Tops, P. W. (eds), Orwell in Athens: A Perspective on Informatization and Democracy (IOS Press,

Amsterdam, 1995).

Pratchett, L. (1999), 'New Technologies and the Modernisation of Local Government: An Analysis of Biases and Constraints' *Public Administration* 77 (4), pp. 731-750.

Putnam, R. D. (1993), *Making Democracy Work: Civic Traditions in Modern Italy* (Princeton University Press, Princeton).

Putnam, R. D. (2000), *Bowling Alone: The Collapse and Revival of American Community* (Simon and Schuster, New York).

Putnam, D. (1996), 'Citizens of the Information Society', *Journal of Information Science* 22 (1), pp. 1-11.

Rheingold, H. (1993), *The Virtual Community: Homesteading on the Electronic Frontier* (Addison Wesley, Reading MA).

Rash, W. (1997) *Politics on the Nets. Wiring the Political Process* (W. H. Freeman, New York).

Rich, P. (1999), 'American Voluntarism, Social Capital and Political Culture', *Annals of the American Academy of Political and Social Science* 565, pp. 15-34.

Schalken, K. (2000) 'Virtual communities. New public spheres on the Internet?' in Hoff, J., Horrocks, I. and Tops, P. (eds) *Democratic Governance and New Technologically Mediated Innovations in Political Practice in Western* Routledge).

Schmitz, J. (1997), 'Structural Relations, Electronic Media and Social Change: The Public Electronic Network and the Homeless' in Jones, S.G. (ed.) *Virtual Culture*.

Identity and Communication in Cybersociety (London: Sage Publications). Tapscott, D. (1995), The Digital Economy. Promise and Peril in the Age of Networked

Intelligence (McGraw-Hill, New York).

Van De Donk, W. B. H. J. and Tops, P. W. (1995), 'Orwell or Athens? Informatization and the Future of Democracy: A Review of the Literature' in Van De Donk, W. B. H. J., Snellen, I. Th. M. and Tops, P. W. (eds), *Orwell in Athens: A Perspective on Informatization and Democracy* (IOS Press, Amsterdam, 1995).

Weare, C., Musso, J. A. and Hale, M. L. (1999), 'Electronic Democracy and the Diffusion of Municipal Web Pages in California', *Administration and Society* 31 (1), pp. 3-27.

Weber, M. (1947), *The Theory of Social and Economic Organisation* (Free Press, New York). Wilhelm, A. G. (2000), *Democracy in the Digital Age* (Routledge, New York).

Primary sources, government and other organisational publications

Cabinet Office (UK) (1999), *Modernising Government* (Cm 4310, HMSO, London). Also available at <http://www.citu.gov.uk/moderngov/whitepaper/4310.htm> (last accessed January 21, 2000).

Cabinet Office (UK) Press Office (2000), 'BT Awarded Contract For Pioneering Website' (Press Release, April 20, 2000, CAB 175/00). Also available at <http://www.citu.gov.uk/megov press.htm> (last accessed July 31, 2000).

- Central Information Technology Unit, Cabinet Office (UK) (1996), *Government.Direct: A Prospectus for the Electronic Delivery of Government Services* (Cm 3438, HMSO, London). Also available at http://www.citu.gov.uk/greenpaper.htm> (last accessed September 21, 2000).
- Central Information Technology Unit, Cabinet Office (UK) (1999), *Portal Feasibility Study* (HMSO, London). Also available at http://www.citu.gov.uk/portals/portals.htm> (last accessed July 31, 2000).
- Central Information Technology Unit, Cabinet Office (UK) and MORI (2000a), Addressing Attitudes to the Change of Address Function: Government Portal Research (HMSO, London). Also available at <http://www.citu.gov.uk.portals/research.pdf> (last accessed July 31, 2000).
- Central Information Technology Unit, Cabinet Office (UK) (2000b), *E-Government: A Strategic Framework for Public Services in the Information Age* (HMSO, London). Also available at <http://www.citu.gov.uk/iagc/strategy.htm> (last accessed July 31, 2000).
- Central Information Technology Unit, Cabinet Office (UK) (2000c), *Towards E-Government: UK Government Interoperability Framework* (HMSO, London). Also available at <http://www.citu.gov.uk/interoperability.htm> (last accessed July 31, 2000).
- Cyberspace Policy Research Group (CyPRG) (2001), Website Attribute Evaluation System database, held jointly at the University of Arizona and George Mason University. Also available at <http://www.cyprg.arizona.edu/index.html> (last accessed August 8, 2001).
- Cyberspace Policy Research Group (CyPRG) (2001a), explanation of the 'Website Attribute Evaluation System' available at http://www.cyprg.arizona.edu/waes.html (last accessed August 1, 2001).
- Department of Trade and Industry (UK) (2000), *Closing the Digital Divide: Information and Communication Technologies in Deprived Areas* (HMSO, London).
- European Council (1994) Europe and the Global Information Society. Recommendations to the European Council (European Commission, Brussels). Also available at http://www.ispo.cec.be/ida/text/english/bangemann,html (last accessed November 11, 2000)
- European Commission (1997) Building the European Society for Us All. Final Policy Report of the High-Level Expert Group [to] Directorate-General for Employment, Industrial Relations and Social Affairs (European Commission, Directorate-General for employment, industrial relations and social affairs, Brussels). Also available at <http://europa.eu.int/ispo/docs/topics/docs/hlge_en_97.doc> (last accessed November 15, 2000)
- European Commission (1998) *Green Paper on Public Sector Information in the Information Society* COM(98)585 final, adopted on 20 January 1999 (European Commission, Brussels). Also available at

<http://ispo.cec.be/docs/policy/docs/com(98)585/index.html> (last accessed November 14, 2000)

European Commission (1999) *e-Europe: An Information Society for All* (Communication on a Commission Initiative for the Special European Council of Lisbon, 23 and 24 March 2000). Also available at

<http://europa.eu.int/combm/information_society/eeurope/index_en.htm> (last accessed December 23, 1999).

- European Commission (2000) The eEurope Update (Communication from the Commission to the Council and European Parliament, Prepared by the European Commission for the European Council in Nice, 7th and 8th December 2000). Also available at <http://europa.eu.int/eur-lex/en/com.pdf/2000/com2000_0783en01.pdf> (last accessed November 11, 2000)
- *FirstGov* (2000), 'Electronic Transactions Offered by US Government Agencies', webpage on the *Firstov* portal at <http://firstgov.gov/featured/transact.html> (last accessed October 3, 2000).
- General Services Administration (US) (1998), *Electronic Delivery of Government Programs* (US GPO, Washington, DC).
- Hansard Society (2000), *Women Discuss: Parliamentary Domestic Violence Internet Consultation* at http://195.102.0.78/womendiscuss/default.htm (last accessed October 9, 2000).

- Hewitt, P. (2000), 'Speech to the Microsoft Government Leaders Conference, Seattle', April 7. Available at <http://www.dti.gov.uk/Minspeech/hewitt070400.htm> (last accessed October 9, 2000).
- IBM (1997), *The Net Result: Social Inclusion in the Information Society* (IBM Corporate Affairs, London)
- Information Society Forum (1996) Networks for People and their Communities. Making the Most of the Information Society in the European Union. First Annual Report to the European Commission (European Commission, Brussels). Also available at <http://www.ispo.cec.be/policy/ISF/documents/rep96/ISF-REPORT-96.html> (last accessed November 10, 2000)
- Information Society Forum (1997) [Second] Annual Report (European Commission, Brussels). Also available at <http://www.ispo.cec.be/policy/ISF/documents/rep97/ISF-REPORT-97.html> (last accessed November 10, 2000)
- Information Society Forum (1998a) 'Bristol Declaration' on their website at http://www.ispo.cec.be/infoforum/documents/bristol.htm> (last accessed 11 May 1998).
- Information Society Forum (1998b) 'Vienna Declaration' on their website at http://www.ispo.cec.be/policy/isf...clarifications/Vienna-Declaration.htm> (last accessed 10 November 2000)
- Information Society Forum (1999a) A European Way for the Information Society [Annual Report] (European Commission, Brussels). Also available at <http://www.ispo.cec.be/policy/ISF/documents/rep99/ISF-REPORT-99.pdf> (last accessed November 10, 2000)
- Information Society Forum (1999b) Opinion on the Green Paper of the Commission on Public Sector Information in the Information Society on their website at <http://www.ispo.cec.be/policy/isf...ts/Opinion-COM-98-585.htm> (last accessed 10 November 2000)
- National Audit Office (UK) (1999), *Government on the Web: A Report by the Comptroller and Auditor General*, written by Dunleavy, P. and Margetts, H. (HC 87, HMSO, London).
- National Partnership for Reinventing Government (formerly the National Performance Review) (US) (1997), Access America: Reengineering Through Information Technology 1997 (USGPO, Washington DC). Also available at
- http://www.accessamerica.gov/docs/access.html (last accessed October 10, 2000). National Partnership for Reinventing Government (formerly the National Performance Review)
- (US) (2000), 'Electronic Government' statement on their website at http://www.npr.gov/initiati/it/> (last accessed October 3, 2000).
- National Performance Review (US) (1993a), From Red Tape to Results: Creating a Government That Works Better and Costs Less: Report of the National Performance Review (USGPO, Washington DC). Also available at <http://www.usgs.gov/public/npr/nptoc.html> (last accessed October 10, 2000).
- National Performance Review (US) (1993b), *Reengineering Through Information Technology: Accompanying Report of the National Performance Review* (US GPO, Washington DC). Also available at <http://www.npr.gov/library/reports/it.html> (last accessed October 10, 2000).
- Office of the E-Envoy (UK) (2000), *UK Online Annual Report* (HMSO, London). Also available at <http://www.e-envoy.gov.uk/2000/progress/anrep1/default.htm> (last accessed October 3, 2000).
- Performance and Innovation Unit, Cabinet Office (UK) (1999), *e-commerce@its.best.uk* (HMSO, London). Also available at http://www.e-envoy.gov.uk/2000/strategy/piureport/default.htm> (last accessed

October 10, 2000).