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Citizenship information, electronic government

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Abstract: *This paper summarises the results of the Citizenship Information national survey of information needs and information seeking behaviour of the UK general public. The project was funded by the BLR&IC and comprised a survey by questionnaire covering all regions of the United Kingdom. 1294 responses were received giving a valid and demographically representative response rate of 45.7%. A highly significant majority (79.2%) believed that access to information was very important for exercising their rights as a citizen. The paper goes on to review the issues arising from the project and from government policy in relation to the provision of information to the public and considers the likely trends emerging from policy as it is formulated presently.*

Keywords*: citizenship information; information needs; information seeking behaviour; citizens; general public; electronic government; social exclusion; surveys; United Kingdom.*

Earlier research into citizenship information need

> ***Citizenship information*** *is information produced by or about national and local government, government departments and public sector organisations which may be of value to the citizen either as part of everyday life or in the participation by the citizen in government and policy formulation.*

This definition of citizenship information has been formulated by the authors, developed from a number of earlier discussions of the concepts underlying the term. In 1977 the National Consumer Council[1] maintained that access to information and advice should be regarded as the fourth right of citizenship to be added to Marshall's three rights, civil, political and social[2], without access to which 'people will not be able to get their dues as citizens of present day society'. The Policy Studies Institute (PSI) defined *citizenship information* as "the information necessary for successful, and if necessary critical, participation in the accepted rights and responsibilities of British citizenship"[3]. However, the PSI also differentiates between the *citizen consumer* and the *active or participant citizen*, where the active citizen has more developed information needs.

These definitions are similar to those of *community information services* which the Library Association describes as those: 'which assist individuals and groups with daily problem-solving and with participation in the democratic process'[4]. In the United States, community information has been categorised by Donohue[5] as: (1) survival information; and (2) citizen action information needed for active participation in the social, political, legal or economic process.

There is a strong body of opinion which suggests that the provision of citizenship information aids the democratic process; however, there has been little basic research which might support such an argument. The extent to which public libraries are likely to be used by members of the public requiring citizenship information has been discussed by a number of authors. Usherwood[6] believes that people are likely to channel their requests for information through public libraries and Citizens' Advice Bureaux because they are known and familiar institutions; and the 1993 Comedia report[7] indicated that, in the fields of welfare rights and citizens' advice, lack of funding for the generic agencies has resulted in public libraries, *de facto* if not *de jure*, picking up the policy responsibility. Swash and Marsland[8], meanwhile, suggested that there has been a rise in public expectation as a result of the Citizens' Charter initiatives, and that this has encouraged more people to explore the provision of information on rights and opportunities from public library services.

The Citizenship Information Project

The first stage of the Citizenship Information research project funded by the BLR&IC, consisted of a questionnaire-based survey of members of the UK public, designed to elicit preliminary quantitative and qualitative data on their use of and need for citizenship information. The data from the completed questionnaires was analysed and cross tabulated using a statistical software package: significant statistical relationships between variables (at the 95% confidence level) were identified using the chi-square test. There were many significant variables - in particular in relation to age, status and region - too many to discuss in full in the present paper. The implications of these are explored in the full BLR&IC report.

1294 questionnaires were completed and returned, giving a satisfactory response rate of 45.7%. Northern Ireland had the most impressive return of 75%. In the other regions the response rates were relatively evenly distributed in the 40-50% range, apart from Wales which had a poor response of only 14.7%. 190 questionnaires (14.7%) were returned from rural areas. 630 (48.7%) of respondents were male, 653 (50.5%) were female. In total, 100 (7.7%) of the respondents belonged to an ethnic minority group. 55.5% of the respondents were economically active, i.e. working or looking for work. 123 (9.5%) respondents indicated they were disabled in some way.

The nature of citizenship information need

Respondents were asked to give an example of an occasion in which they had been required to look for information to help them make a decision, solve a problem, or understand something a little better. In total, 769 (59.4%) of the respondents gave such an example. A wide range of situations in which a need had arisen were indicated as shown in Table 1. Other subjects on which respondents had sought information in the past included: history, including local and family history; the Arts; religion; science; and animal welfare.

Table 1: Types of information sought in the past (closed question)		
Subject	**Number**	**%**
1. Leisure and Recreation	**502**	**38.8**
2. Education	**478**	**36.9**
3. Employment / job opportunities	**433**	**33.5**
4. Transport and Travel	**409**	**31.6**
5. Legal information	**326**	**25.2**
6. Health Care	**305**	**23.6**
7. Social Security Benefits	**284**	**21.9**
8. Information about your local council	**280**	**21.6**
9. Financial matters	**273**	**21.1**
10. Environmental information	**263**	**20.3**
11. Information about politics/ UK Govt.	**260**	**20.1**
12. Taxation	**254**	**19.6**
13. Housing	**252**	**19.5**
14. Family / Personal matters	**231**	**17.9**
15. Technology and Communications	**223**	**17.2**
16. Health and Safety at work	**218**	**16.8**
17. Citizens' rights	**202**	**15.6**
18. Information about the European Union	**176**	**13.6**
19. Equal rights and Discrimination	**154**	**11.9**
20. Business opportunities	**151**	**11.7**
21. Crime and Security	**144**	**11.1**
22. Consumer and Credit	**139**	**10.7**
23. Immigration and Nationality	**89**	**6.9**

There had been a significant female preference for educational, family/personal information and health care information: male respondents had had more interest in technology and communications and political information. The percentages of those aged 19 or under interested in several topics were decidedly lower than for the other age groups. Disabled respondents expressed a greater need for welfare benefit, equal opportunities and health information. Welfare benefit information was sought by respondents seeking work and employment information was frequently sought by job seekers. Respondents from ethnic minority groups displayed a greater need for information on immigration, equal opportunities, housing, business opportunities and consumer/credit issues.

Respondents had gone to a number of agencies in the past to obtain information, with the great majority going to public libraries and CABx (See Table 2).

Table 2: Organisations and people visited to obtain information

Organisations / People	Number	% (of 769 respondents)
Public libraries	**513**	**66.7**
Citizens Advice Bureaux	**136**	**17.7**
Academic libraries	**59**	**7.7**
Other advice centres	**32**	**4.2**
Offices of Government departments and agencies	**30**	**3.9**
Professional people (e.g. doctors, solicitors)	**27**	**3.5**
Local council offices	**16**	**2.1**
Voluntary groups and agencies	**14**	**1.8**
Internet	**13**	**1.7**
The press	**8**	**1.0**
Careers services	**7**	**0.9**
Family and friends	**7**	**0.9**
National Libraries	**5**	**0.7**
Records / Archives offices	**4**	**0.5**
Bookshops / Own reference materials	**3**	**0.4**
Community centres	**3**	**0.4**
Professional / Trade Associations	**3**	**0.4**
MPs	**2**	**0.3**
Post Offices	**2**	**0.3**
Tourist Information Centres	**2**	**0.3**
Training and Enterprise Councils	**1**	**0.1**

However, it is significant that the number of jobseekers in the CABx and other advice agencies was almost twice that in the public libraries.

In terms of their satisfaction with information obtained, users clearly found it difficult to judge qualities such as accuracy, currency, comprehensiveness and format of information. Generally they were happy with the comprehensibility and the relevance of the information found.

The least comprehensible types of information were legal information, information to assist with educational coursework and welfare benefits information. Welfare benefit information was often felt to be irrelevant to individual respondents' needs. Legal information was the subject of the most dissatisfaction, with a significant number of the users of legal information indicating that the information was not comprehensive, accurate nor in an easy to use physical format.

The levels of satisfaction were also cross-tabulated with details of the major sources of the information in order to investigate whether the public was more or less satisfied/dissatisfied with information from particular providers. Government departments rated poorly in a number of respects.

Respondents were asked in what circumstances they had encountered problems in locating information. Significant numbers of respondents cited categories of information such as educational information, legal information, leisure and recreation, health care, business information, welfare benefits and employment information. Some respondents indicated the reasons why the information had been difficult to obtain, including inadequate resources, difficulties using information systems, official secrecy, lack of knowledge on the part of information professionals and lack of knowledge of the location of information.

Respondents were asked to indicate (from a list of 13 reasons) the reasons why they had wanted citizenship information in the past. (See Table 3)

Table 3: Past reasons for wanting information

Reasons	Number	%
1. Educational / study reasons	**632**	**48.8**
2. Work-related reasons	**455**	**35.2**
3. A general interest	**431**	**33.3**
4. Family / personal reasons	**426**	**32.9**
5. Recreational reasons	**365**	**28.2**
6. Job-seeking reasons	**359**	**27.7**
7. Health reasons	**303**	**23.4**
8. Financial reasons	**288**	**22.2**
9. Legal reasons	**251**	**19.4**
10. Business / commercial reasons	**157**	**12.1**
11. For work with a representative / interest group	**141**	**10.9**
12. For political decision-making	**100**	**7.7**
13. Religious reasons	**85**	**6.6**

Almost half of the survey sample (48.8%) identified educational and study reasons for wanting information, and significant numbers also cited work-related reasons, family and personal reasons, and a simple general interest. There was a significantly low incidence of information seeking for political decision making and for religious reasons. Women more frequently sought information for family and health reasons, men for business reasons.

Future information need

Table 4 summarises the differences between the respondents' past citizenship information needs and their predicted future needs, indicating those categories where greatest change in future needs is predicted.

As can be seen, the top six subjects required in the past (leisure and recreation, education, employment, transport and travel, legal issues, and health care) are still regarded as the six types of information most likely to be required in the future, although in a slightly different order of preference. For most topics respondents predict an increase in future needs, but a surprising and interesting fall in need for fairly major '*survival*' categories such as housing, benefits and education, while showing greater future need for '*participative'* information such as the European Union.

For those respondents aged 19 and under, there was an increase in predicted future use for all topics except education and environmental information; while for those aged 45 and over, predicted future use of the majority of subjects was less than past use.

Table 4: Difference between past and predicted future needs						
	Past need		**Future need**		**Net difference**	
Subject	**%**	**Pos.**	**%**	**Pos.**	**± pts**	**±Pos.**
European Union	13.6	18	21.9	10	+8.3	+8
Business opps.	11.7	20	17.6	18	+5.9	+2
Citizens' rights	15.6	17	20.6	13	+5.0	+4
Legal	25.2	5	29.8	3	+4.6	+2
Crime/security	11.1	21	14.6	20	+3.5	+1
Taxation	19.6	12	23.6	8	+4.0	+4
Consumer/credit	10.7	22	13.3	22	+2.6	same
Tech. & comms.	17.2	15	19.6	15	+2.4	same
Financial	21.1	9	23.5	9	+2.4	same
Local council	21.6	8	23.8	7	+2.2	+1
Health care	23.6	6	25.8	6	+2.2	same
Equal rights	11.9	19	13.8	21	+1.9	-2
Immigration	6.9	23	8.7	23	+1.8	same
Family/Personal	17.9	14	19.5	16	+1.6	+2
Environmental	20.3	10	21.6	11	+1.3	-1
Politics/Govt.	20.1	11	21.0	12	+0.9	-1
Health & Safety	16.8	16	16.8	19	0	-3
Housing	19.5	13	19.2	17	-0.3	-4
Employment	33.5	3	32.3	2	-1.2	+1
Welfare benefits	21.9	7	20.1	14	-1.8	-7
Transport/travel	31.6	4	29.0	4	-2.6	same
Leisure	38.8	1	35.7	1	-3.1	same
Education	36.9	2	28.1	5	-8.8	-3

Table 5 summarises the differences between the respondents' past reasons for seeking information, and their predicted future reasons for requiring information.

Table 5: Difference between past and predicted future reasons						
	Past reasons		**Future reasons**		**Net Difference**	
Reasons	**%**	**Pos.**	**%**	**Pos.**	**±%**	**±Pos.**
Financial	22.2	8	25.0	7	+2.8	+1
Political decision-making	7.7	12	8.7	12	+1.0	same
Business / commercial	12.1	10	13.1	10	+1.0	same
Legal	19.4	9	20.0	9	+0.6	same
Rep. / Interest group	10.9	11	11.1	11	+0.2	same
Religious	6.6	13	6.3	13	-0.3	same
General interest	33.3	3	32.7	2	-0.6	+1
Job-seeking	27.7	6	26.9	5	-0.8	+1
Health	23.4	7	21.8	8	-1.6	-1
Work-related	35.2	2	32.6	3	-2.6	-1
Recreational	28.2	5	25.4	6	-2.8	-1
Family / personal	32.9	4	28.8	4	-4.1	same
Educational / study	48.8	1	36.4	1	-12.4	same

The four most popular past reasons for seeking information (educational, work-related, family, and satisfying a general interest) are also regarded as the most likely reasons for requiring information in the future. There was, however, a significant reduction in predicted educational need. Political decision making and religious reasons were again regarded as the least likely motives for information seeking. Interestingly much fewer increases were

predicted and a greater proportion of respondents indicated a drop in information need in relation to specific uses.

Respondents were given a list of organisations and people and asked to indicate whether they would approach them for information frequently or occasionally. In total, 1209 (93.4%) of the respondents indicated they would approach at least one of the sources to obtain information (See Table 6).

Table 6: Preferred sources of information

Organisations / People	No.	%
1. Public libraries	**1001**	**77.3**
2. Family and friends	**798**	**61.7**
3. Offices of Govt. depts. and agencies (e.g. Inland Revenue, Benefits Agency)	**697**	**53.9**
4. Post Offices	**687**	**53.1**
5. Citizens Advice Bureaux	**652**	**50.3**
6. Professional people (e.g. doctors and social workers)	**634**	**49.0**
7. Local council offices	**551**	**42.5**
8. Academic libraries	**509**	**39.4**
9. Other information and advice centres	**406**	**31.4**
10. MPs	**331**	**25.6**
11. Professional / Trade Associations	**293**	**22.6**
12. Chambers of Commerce	**121**	**9.4**

Over three quarters of respondents would use public libraries. Between half and three quarters of the respondents would approach Citizens Advice Bureaux, post offices, Government departments and agencies, or their family and friends. Very small numbers identified additional preferred sources of information, including the Internet (3), leisure centres (3), and local councillors (2). The agency most frequently cited by the disabled was the CAB network, who were less likely to use the public library. Social class was a factor in use of public and academic libraries, with significantly higher proportions of Class I respondents using both. Ethnic minority respondents showed a significant preference for visiting advice agencies. Only 1.4% of respondents indicated a preferred minority language of information provision, compared with 7.7% of respondents that in total came from an ethnic minority.

From a list of methods of obtaining information, respondents were then asked to indicate their favourite three methods in order of preference. These responses were then given weighted scores and ranked accordingly. (See Table 7)

Table 7: preferred methods of obtaining information - ranked by weighted scores

Method	Points
1. Talking face to face with someone	**1023**
2. Reading a book	**848**
3. Looking through a collection without help from the staff	**827**
4. Reading a newspaper	**679**
5. Talking by telephone to someone	**518**
6. Listening to the radio	**426**
7. Watching television	**411**
8. Reading a leaflet / pamphlet	**312**
9. Using a computer	**275**
10. Reading a magazine	**232**
11. Writing a letter	**171**

Preference for face to face communications is high. Again interestingly the traditional book retains a high degree of favour with a significant number of respondents. Many respondents,

however, are happy to browse unassisted in a collection or to make an enquiry by telephone. The significance of the media is attested. Interestingly there is a continuing preference for newspapers. However, only a small proportion prefer using a computer or writing a letter. These data suggest that no single mechanism for enabling access to information should be seen as the ultimate solution to the information needs of the citizen. Rather a complementary range of solutions must be offered to the citizen. There were a number of significant demographic variations.

Respondents were asked how often they would use computers to look for information, if public access to computers was made more widely available in the types of public places cited in the Government's *government.direct* Green Paper[9]. In all, 969 (74.9%) of the respondents indicated they would use computers on at least an occasional basis in at least one of the places listed (See Table 8).

Table 8: Use of public access computers on at least an occasional basis

Location	No.	%
Computers in public libraries	**940**	**72.6**
Computers in post offices	**488**	**37.8**
Computers in shopping centres	**454**	**35.1**
Computers in town halls	**378**	**29.2**

There was a clear emphasis on public libraries as an appropriate location for computerised access to information for a significant majority of the general public. The other options listed, though, would also attract a significant body and proportion of the general public. A small proportion (64) of the respondents specified one or more other locations at which they would use public access computers, such as health centres, railway stations, schools, universities and Citizens Advice Bureaux.

In the final question, respondents were asked if they believed that access to accurate and unbiased information is important for exercising their rights as a citizen. A highly significant majority (79.2%) believe that access to high quality information is very important for exercising their rights as citizens, while 15.1% felt that it was quite important. Only 0.8% felt that such access was not important. Highly significantly, one notable feature was that those aged 19 or under felt less certain of the importance of information than the other age groups.

Information, the citizen and government policy

The Citizenship Information project has been ongoing at a time of great change in terms of information policy formulation and development: these findings must, therefore, be considered in the light of that broader context. Until relatively recently UK government policy paid little attention to the concept of citizenship information. *The Local Government (Access to Information) Act*[10] gave the public the right to attend council meetings and to gain access to relevant documents. The *Citizen's Charter* initiative[11], with its emphasis on choice, quality of service and information and openness, led the government to introduce, in 1994, a non-statutory *Code of Practice on Access to Government Information*[12]. In support of the initiative the government's Central Computer and Telecommunications Agency (CCTA) established a UK Government Information Web Server. The *Freedom of Information White Paper*[13] was published in December 1997, with a view to establishing a general statutory right of access to official records and information. The *Crown Copyright Green Paper*[14] in January 1998, listed amongst seven options for the future management of Crown copyright, the

possibility of its abolishment and the placing of all material originated by government in the public domain.

Professional and representative bodies and other interested organisations have indicated the importance of public libraries providing citizenship information. The Library Association's pre-election *Library Manifesto*[15] in 1997 declared that 'if citizens are to exercise their democratic rights and make informed choices they must have access to political, social, scientific and economic information'. UNESCO's *Public Library Manifesto*[16] highlights the role of libraries in enabling "well-informed citizens to exercise their democratic rights and to play an active part in society"; and the *Public Library Review*[17] stressed the importance of public libraries providing effective access to information because "access to fuller information is an aid to democracy, and should increase a citizen's ability to exercise his or her franchise and to influence policy". The Coalition for Public Information (CoPI)[18] was established in 1996 with the aim of ensuring that information and communications infrastructures in the UK enable individuals and organisations to participate in 'social, economic and democratic activity'.

In the aftermath of the *Public Library Review*, a Library and Information Commission working party was set up to develop a public library networking plan which resulted in the publication of a report recommending the creation of a network linking public libraries. This report, *New Library: the people's network*[19], was warmly received by the Secretary of State for Culture, Media and Sport who put the case for 'the library of the future as a catalyst for enabling people to involve themselves more fully in the democratic process'[20]. In April 1998, the government's response to the LIC report was published indicating the government's recognition that 'the proposed public libraries network will play a central role in delivering its [the government's] wider objectives for the role of technology in society ... to allow Britain to increase its prosperity and quality of life'[21]. The emphasis in the response is upon the people's network supporting education for the public and their exposure to technology, while also playing a part in the delivery of government services (both local and national) to the public. However, there seems little acknowledgement that public libraries have a role in providing citizenship information, apart from education: for example fifty million pounds will be made available for the digitisation of educational material but there is no reference to local community or public information. In particular libraries will 'play an important part in providing assisted access for those who do not have access to a computer terminal at home and those uncomfortable with electronic media'[21]. Despite the rejection of the *Information for All* bid for Millennium Commission funds, *the New Opportunities Fund* will disburse these funds together with twenty million pounds to train **all** library staff in information and communications technology by the year 2001[22]. The proposed People's Network will link with the *National Grid for Learning*[23] as part of an integrated network of online learning and teaching materials.

Increasingly over recent years government information in electronic form has become accessible via the Internet. The Government Information Service[24] attempts to provide a single point at which information produced by departments and agencies of government is presented in a coordinated fashion. The Parliamentary Channel Online[25], the web site for the Houses of Parliament, provides a range of information about the activities of Parliament and details of Members. All UK political parties now have a web presence, although a recent student project, supervised by one of the authors, which compared British and Danish party sites found a lack of interactive opportunity for public debate on British sites and on many government departmental sites: most merely offered an email address for correspondence and messages sent frequently received no response. However, UK Citizens Online Democracy[26] was established in 1996 by Irving Rappaport, backed by the Joseph Rowntree Charitable Trust, to develop opportunities for wider participation in the democratic process and to promote public participation in government by connecting voters with politicians and may be

deemed to have taken on this debating role globally. For chance visitors to MPs' and departmental sites, this potential for interaction and exchange will still remain invisible. It was designed to be an independent forum, initially allowing debate between politicians - now broadened to enable wider public debate. Voters are excluded from the politicians' debate, but have a parallel debate session. In another recent student project it was found that online provision of information by Members of Parliament was relatively low. Although party sites had been extensively used in the period preceding the 1997 General Election and in Scotland prior to the devolution debate, these had remained little changed since. More significantly, as of November 1997, only 25 constituency level Labour Party web sites were found, representing fewer than 4% of the 659 UK constituencies. Only 12 web sites were found for individual MPs, representing only 2.8% of the constituencies with a Labour MP.

The majority of local government authorities have established sites, with for example 21 of 32 Scottish local authorities having a Web presence and some have sought public comment on issues via email, as in Croydon. However, there is little evidence of a consensus as to how these sites should be used by authorities nor of strategic editorial control of content in their ongoing update and maintenance.

In November 1996, the Green Paper *government.direct*, was issued as a prospectus for delivery of government services to citizens and the business community using electronic communications technologies. *government.direct* was intended to provide better and more efficient services to businesses and citizens, to improve the efficiency and transparency of government administration and to reduce costs for the taxpayer. As part of this proposal it was suggested that public access terminals could be provided 'in places such as post offices, libraries and shopping centres' and eventually via cable and digital television. The Green Paper dealt with the provision of government information, tax, licensing, procurement, grants and benefits. In March 1997, in their response to issues raised relating to the Green Paper, the then Conservative government stated that 'the strategy should aim to make electronic direct delivery of services the preferred option for the majority of government's customers (both citizens and businesses). However, it is likely that there will always be people who are either not willing or not able to use such services. These groups should retain the option of a traditional face-to-face, telephone or paper-based service.'[27] (Central Information Technology Unit, 1997).

In the aftermath of the 1997 General Election, the incoming government instituted a reappraisal of the *government.direct* initiative. The White Paper on *Freedom of Information* published in December 1997 suggested the likely need for the practical emphasis to be upon Information and Communications Technologies (ICTs) in enabling public access to sought information in an efficient, cost effective and speedy manner. The new Labour Government had by that time requested that the Parliamentary Office of Science and Technology report in January 1998[28] on developments in electronic democracy, identifying the key trends that were considered to be important. The *Electronic government* report discusses the benefits for government in the UK and discusses issues arising. It identifies three areas of concern, where it was felt that electronic government would have a significant impact: in the use of ICTs to improve efficiency and effectiveness of the executive functions of government, including delivery of public services; in the potential support of greater transparency in government by enabling public access to a greater range of information generated and collected by government; and in the consequent effecting of changes resulting from ICTs in the relationship between the citizen and the state, with implications for the future structure of government and the democratic process.

The new government decided to continue the development of *government.direct* through the existing series of pilot projects and a White Paper was promised in 1998. Other initiatives where the impact of electronic government is felt likely to have an impact include: the

modernisation of procedures in the House of Commons; the improvement and facilitation of services such as benefits claims and revenue collection; legislation on freedom of information and data protection; devolution of decision making in Wales and Scotland; the development of a Government Secure Intranet (GSI) and the radical restructuring of communications and information seeking amongst Members of Parliament; and the development of a standard for digital signatures, providing greater security and hopefully resulting in greater public confidence in, and use of, ICTs.

Developments already initiated and underway at the time of the *Electronic government* report in the U.K. included:

1. Combating fraud in the public sector by checking for inconsistencies in databases.
2. Outsourcing of government departmental IT functions such as the National Insurance System.
3. Disseminating official information via a single interface on the Internet - the Government Information Service (GIS).
4. Setting up of organisations such as the Central Information Technology Unit (CITU) and the Central Computer and Telecommunications Agency (CCTA) to enable government to exploit technology.
5. Supporting a number of local authority initiatives such as Hantsweb's 400,000 pages of information on the WWW about Hampshire.
6. Supporting (although not financially) UKCOD to encourage public involvement in political debate.
7. Initiating and supporting pilot projects specific to areas of activity such as Cambridgeshire Childcare Links.
8. Increasing use of ICTs in Parliament, with most members having access to internal networks, email and Internet.
9. Continuing appraisal of the ways in which citizens' everyday activities might be affected by the developments in ICTs

There are a number of mechanisms that have been identified by which the general public may be provided with electronic access to government information:

1. Government information kiosks in public places, allowing access for the public to, for example, benefits information and enabling information to be sought as well as transactions to take place.
2. Using other (potentially private sector) organisations' existing networks of information terminals, such as bank ATMs and supermarket checkouts, where the public can access systems integrating government functions with those of the bank or retail store (where the mortgage seeker for example might move from the bank's system to that provided by government on tax and mortgages), and where the host organisation would add value to the government information by targetting it at actual need and application.
3. Direct PC based access in public places, such as libraries, Internet cafes, community centres and schools.
4. Mediated access to online facilities, providing gateways linking both government sites and sites produced by other relevant organisations, in government offices and Citizens Advice Bureaux.
5. Access (potentially via employer developed gateways) to appropriate sources via PCs at work, although the suggestion does raise questions about official and unofficial use of government information.
6. Dedicated PCs or kiosks provided as a facility by employers.
7. Interactive multimedia services in the home via Digital Television (DTV) set-top boxes.
8. Telephone call centres and help lines, where operators would provide mediated access to electronic information on behalf of enquirers.

9. An interface between technology and the citizen that packages information according to particular life events (such as birth, employment, education etc.) or an interface designed around life processes (as in for example the maintenance of health or education in a lifelong manner), and where such interfaces are available via dedicated terminals in appropriate organisations (government and Non-governmental organisations), so that ante-natal clinics, doctors' surgeries, maternity wards and registrars would have dedicated PCs giving access to the Birth gateway, with information and processes brought together in a meaningful manner.

The last is perhaps the most innovative and exciting of these suggestions. Our findings to date suggest that there is a clear emphasis upon public libraries as an appropriate location for access to electronic information, but that all other cited locations would be used by a significant body of the population. Shopping centres in particular attracted clear interest amongst women respondents. A number of other venues were suggested by respondents, most significantly perhaps, health centres, universities and leisure or community centres.

The nature of the communication and interaction between the citizen and government potentially enabled by ICTs takes a variety of forms and these include:

- The creation and maintenance of Internet sites with government documents available: this is already well under way, with as we have seen the Government Information Service's co-ordinated approach linking appropriate departmental sites.
- The use of electronic mail networks to disseminate information and provide current and relevant information to particular interest groups, in a focused and targeted form of selective dissemination of information.
- The enabling of forms of online voting, whether at general or local elections, in response to specific questions at referenda or simply to gather opinion and response to consultative documents.
- The enabling of a free form of online debate/discussion/recording of views amongst interest groups in relation to current issues and concerns: this form of discussion may be monitored and subsequently analysed to demonstrate attitudes and likely future trends.
- The market testing of services or ideas, gathering data on opinions and attitudes.
- The enabling of issue based debate directly with elected representatives or government officers.
- The creation of the electronic town hall: *Tomorrow's Town Hall*[29] emphasises the potential role of Digital Television (DTV) in enabling a fuller participation by the community in local authority affairs.
- The receipt of data from citizens and organisations in support of processes where interaction with government already takes place in other media.

Issues arising from the developing focus upon electronic government

There are a number of issues arising from the results of the Citizenship Information project and from the growing emphasis upon technology in the government's policy on provision of information to the citizen that have potentially very significant ramifications. Since the European Commission's report on the *Information Society*, there has been a real awareness of the dangers of exclusion for citizens from participation, due to a variety of factors. A survey conducted as part of the *IT for All* initiative reports[30] the levels of response to the different stages of the technology confidence ladder up which individuals may ascend, ranging from 16% who are alienated, 20% who are unconvinced, 18% who are concerned, 21% who are acceptors of technology and 25% who are enthusiasts. The forms that exclusion might take relate to characteristics such as:

- the individual's possible lack of technical awareness and ability to use the new technologies;
- their level of education and training in support of information seeking;
- access to the technology, whether limited by geography or the costs of use of technology;
- attitudes to technology and potentially technophobia;
- negative attitude formation about the people that are technologically adept;
- negative early experiences of technology;
- limited awareness of the resources and facilities available and their functionality or relevance to the life situations of individuals;
- lack of motivation to use or apply the technology or expend the time and money necessary to apply the technology;
- lack of appropriate or comfortable situations in which to learn about or explore technology;
- lack of mentors, exemplars or inspiring teachers/trainers;
- fear of the apparent lack of security in electronic transactions;
- concerns about the privacy of participation in political debate/voting and the extent to which information is stored in an attributable way;
- feelings of isolation engendered by electronic communications;
- myths that have developed surrounding technology and its use.

This is probably not an exhaustive list, but suggests some of the barriers that must be overcome in enabling and encouraging the exploitation of technology by the widest possible cross-section of the population at large.

A number of commentators have also raised the issue of the information rich and the information poor. A report produced by the IBM in 1997 *The Net result: social inclusion in the Information Society*[31], dealt with the problem of those that do not have access, educationally or technologically, to the Information Society. It recommended that resource centres be set up, providing a publicly accessible means of doing business electronically. The report concludes that ICTs provide ready access to information produced by government for citizens and potentially user friendly channels of communications via which citizens and policy makers can discuss issues. The public access aspect of this debate is being tackled by the People's Network (although we must acknowledge the barriers to use of public libraries and to use of print-based information that have long been recognised), but attitudinal and cultural barriers have still to be further explored.

There are also suggestions in the Citizenship Information results that specific groups of the population are particularly at risk of exclusion: the rural population; older people; women; the less well educated; individuals with special needs; and amongst the unemployed or those of lower status in employment. Certainly the results of the present project would suggest that there are real concerns about the older members of the population and those running a home or retired. Although the government are conscious that there will remain a need for the continuing provision of information in print, throughout most of the initiatives we have examined above there is the suggestion that innovation and development of services will take place in electronic form and the significance of that fact for the excluded groups must be fully explored. We must look at the factors underlying exclusion for specific groups and devise strategies for overcoming each of the barriers identified. It is important that any work undertaken looks at such smaller sections of the population for there are likely to be very significant variations in the extent to which different factors come into play for each. For certain groups lack of education or training may be most significant, while for others education/training may have been received but the lack of relevant and demonstrable application of the technology or the culture surrounding it may have demotivated potential users. The role of public libraries in ensuring access for all would seem to be supported by the

People's Network concept, but the potential for the enabling of that inclusion will only be realised if public libraries become aware of the ways in which they can help to overcome barriers for at risk groups.

Equally there are those that have suggested that electronic government will encourage and support openness in government. There are clear links between the review of the role of electronic information provision and freedom of information and there is an assumption that information and communication technologies are a necessary mechanism in the enabling of access to government information - in a widely available, efficient and cost effective manner - to the widest possible spectrum of society. There are certainly those that believe that ICTs and electronic government will produce a more egalitarian society, where equal access to all is assured. However, demographics of the web at present suggest that users are not presently reflective of the U.K. population as a whole.

Alternatively, however, it can be argued that electronic government has the potential to reduce citizen alienation and isolation and this is an argument that has been mooted in relation to all kinds of data interchange. For example, there are both threats and benefits to culture in an electronic society: a minority culture may be sustained by the ability of electronic networks to overcome distance and geographic barriers in bringing individuals and groups together that share a cultural identity. However, the nature of the sole form of electronic cultural interchange may have unpredicted and potentially negative impacts upon the future development of that culture, for those that exercise power and influence in an electronic environment may be very different from those that might have exercised power and influence in a physical environment. The effects may be better or worse but they are not likely to remain the same. Hypothetically the development of any discipline, policy, ideology and even language are likely to be materially affected by their development in a virtual rather than physical environment and we understand far too little at present about the nature of the impact of such a change in environment.

There are also issues implicit and relatively unstated in this whole debate, issues familiar to the reference librarian, of the quality, authority and reliability of information. There are also likely to be problems for information users in distinguishing between electronic information published by official government sources and that provided about government by others. This question is, of course, tied up with the traditional question for librarians of measuring the quality and reliability or authority of information.

One disadvantage of electronic democracy that has been highlighted by Segell[32], is that it slows the process of policy formation when society elects and pays politicians to be expert and informed and to represent their electorate's views. However, there may be a growing cynicism about the extent to which politicians are always well informed and a growing awareness of the difficulties implicit in any individual seeking to be expert on all subjects - a fact that scholars and reference librarians have long acknowledged. There are also concerns about the extent to which government may be impacted upon by processes which elicit ever greater quantities of citizen response, and as Segell points out too great an emphasis on impulsive response to intensely felt public opinion may lead to hyperdemocracy. Equally government departments and Members of Parliament are clearly concerned about being overwhelmed by demands for information from citizens via email. Increasing emphasis on electronic interaction between the citizen and government may therefore have a significant and lasting impact on government processes and upon the role of the Member of Parliament. The advantage, however, is that hypothetically the result will be a much more responsive government, which is more truly representative of the wishes and attitudes of the population as a whole. The Internet provides potentially an easier and fairer way for the citizen to communicate with government. Increasing use of ICTs by society as a whole will also have an impact on the traditional relationship between government and the press, where the public

can go more frequently directly to sources of information without the mediation of the press. The second stage of the Citizenship Information project will address some of these issues directly.

ICTs may then facilitate greater openness and transparency in government processes by making public sector documents more readily accessible and more cheaply and more quickly. But what are these government communications? The *Electronic Government* report distinguishes three types of government information existing, where (1) government wishes to disseminate material such as press releases, consultation documents, health and entitlements information (2) may make information available, such as statistics collected by government departments or information generated within government departments and (3) is required to supply information, such as departments' performance indicators, audited accounts, internal policy documents and management reports, under the *Code of Practice on Access to Government Information*. This is an interesting distinction in that clearly the motivation of government in promoting knowledge and use of information by the citizen will vary according to which of the above categories the information belongs. The price of access to government information must then be debated and a policy established: open government argues for making access freely available to all while economic pressures suggest that much government information has a monetary value which may be exploited, particularly statistics. However, there is an observable trend towards making statistical information freely available on the Internet. There needs, however, to be a coordinated policy and an overall ethos in relation to government information - is it a service to the citizen or an exploitable commodity?

Government information has been classically an area where it has been difficult to access information and difficult for users to handle information once found. The *Electronic Government* report acknowledges that much information remains buried or difficult to access. While access may be enabled by electronic provision, this is by no means an outcome to be taken for granted. It is only through the development of user-friendly and effective search engines and gateways that the public will be able to access the pieces of information that they require in a speedy and satisfactory manner. One of the authors, although a reasonable expert and certainly experienced searcher, recently spent two hours searching for a piece of fairly high profile information that had been released by the Scottish Office and although the information was eventually located, this success was achieved only through a mixture of grim determination not to be bested and free and easy access to the Internet. The search engine available was ineffective and the information was eventually found via menus and following an interminable series of links. It is hard to imagine a member of the public with fewer resources searching for a perhaps arcane yet individually relevant piece of information meeting with success.

> *'Electronic democracy can be understood as the capacity of the new communications environment to enhance the degree and quality of public participation in government'*[32].

Segel identifies four models of electronic democracy: The Electronic Bureaucracy Model involving electronic delivery of government services, as in for example the submission of tax forms and accessing benefits information; The Information Management Model enabling more effective communication between individual citizens and candidates or decision makers; The Populist Model enabling citizens to register their view on current issues; and The Civil Society Model strengthening connections between citizens providing a powerful and free form of public debate.

The model that the authors would recommend transcends and examines the functionality concurrently of all of these process driven models. We have termed it the '*government/citizen interchange model'* and it would consider the complex pattern of provision and use of information by the government and the citizen in a holistic manner, examining the functions of information for both groups, both in terms of mutuality and exclusivity of functions. In this model the functions of information for both parties are analysed and classified and a methodology for tracing lines of communication and need is devised.

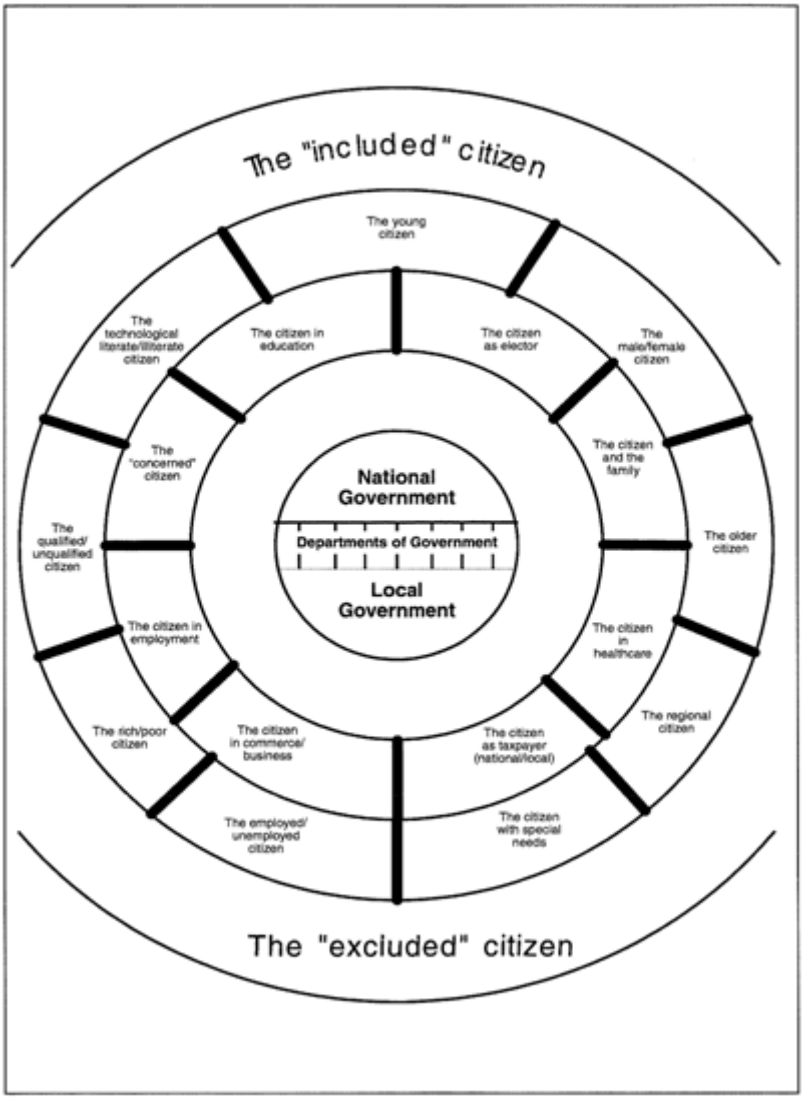

Figure 1: The government/citizen interchange model

Figure 1 shows a model in which the outer circles should be interpreted as wheels that may revolve to illustrate the multiple potential combinations (or facets) of information need and use. Mathematical calculations may be made to indicate the number of combinations or syntheses possible. This model draws upon Ranganathan's analytico-synthetic theory of classification. For each individual instance of need, the information seeker will demonstrate a number of characteristics; the information seeker might for example be an excluded female undertaking education requiring information from local government, or an included, rich businessman requiring information from a central government department. The illustrated

model requires much further development. Information may flow from government to the citizen or from the citizen to government.

Conclusions

It has been argued by the authors that the relationship between the citizen and government information should be further explored and that in particular the establishment of a Scottish Parliament and a Welsh Assembly provides an excellent opportunity to develop an information policy from first principles rather than tinkering with an existing system. It would be wonderful if this opportunity could build upon primary research into what all players require from a holistically viewed government information system. Although a recent conference was held to consider Information for Scotland, there is still little real indication of the nature of the services that will be provided. The Scottish Parliament Building[33] user brief discusses the IT requirements of the new Scottish Parliament, but only in terms of the need for access to the Internet and the internal administrative procedures. The Advisory Committee on Telematics for the Scottish Parliament[34] has recommended the creation of an open parliament based upon state of the art ICTs, providing support for MSPs and public access. A free DTV channel reporting on the Scottish Parliament would be provided. It is argued that this combination of mechanisms would enable good interaction with citizens. There will also be experimentation with Citizens' panels, citizens enquiries and deliberative polling groups using ICTs. MSPs' surgeries, fora and town meetings may also be held electronically. James[35] also recommends a 'fully networked online environment' for MSPs and the public.

The need for information by elected representatives and their researchers is also an area that has been poorly researched to date and the Scottish Parliament and the Welsh Assembly would allow pilot studies for the development of a more effective system. One problem underlying the development of an effective information policy by present legislators relates to the poor level of understanding of information sources and their use by these legislators. The paucity of research into the ways in which policy makers and legislators access and use information, beyond the user satisfaction surveys carried out by the House of Commons Library, which tend naturally to focus upon the quality of services presently provided and levels of use of IT by MPs, means that we in the information professions have little understanding of what information means to this group and therefore little understanding of the best ways in which we as a discipline can communicate effectively with the group. An informed legislature would understand the value and potential of high quality information to enhance decision making, but the corollary is that a legislature uncertain of issues underlying information access and use will be poorly placed to guide the development of information policy for the future. However, there are few signs that information strategy is being treated as a significant issue by many politicians at any but the highest levels: although policy will naturally percolate through to the grass roots as the debate outlined above becomes more widely dispersed. At grass roots information policy may seem overly theoretical and detached at present from the public's lives. At a very recent COSLA conference looking specifically at the role of the new Scottish Parliament[36], no mention was made of the potential of electronic communications, despite the fact that two areas of great concern to the speakers were seen to be poor voter turnout and lack of effective communications between government and the citizen, in particular in terms of the relatively limited media coverage of government's official actions (as opposed to often highly publicised unofficial actions). In both cases electronic media have the capacity to improve the current situation. There is, for example, evidence from the United States that participation in online discussions fora may materially impact upon voting rates, although this has still to be fully tested.

Finally, as we have seen, the public library sector in the United Kingdom is being presented with an opportunity to reappraise its role in the enabling of the social inclusion of all citizens

by assisting in bridging any gaps that may exist between the citizen and electronic media. In many ways this is simply a reaffirmation for many in the LIS sector of the role of the librarian as a mediator or gateway between the information seeker and the sources of information, but the authors of this paper would argue that it is an opportunity that should be embraced by the LIS sector both as a testament to our belief in the continuing and even growing need for mediation and our belief in the extent to which libraries can continue to perform that function in a way that recognises and meets a changing society's needs, and in particular to address the needs of those that may be disadvantaged in the resources that they have available to them. Black and Muddiman[37] identify three conceptions of community librarianship: 'the welfarist, based on paternalist and statist philosophies associated with the mid-century welfare state; the radical associated with ideas about decentralisation, community autonomy and freedom of access to information; and the consumerist, based on a commitment to customer satisfaction and market research'. From the perspective of library authorities' attitudes to service, all should be represented, rather than accepting uncritically this observed 'narrative of change'. Surely, the present authors would argue, the profession is capable of conceptualising and dealing with all concurrently.

There are also, the authors would suggest, some real concerns as to the extent to which government policy may focus upon the development of IT based pilots and is therefore, being technology driven, rather than developing out of evidence of real societal needs. Societal needs must continue to be researched. The suggestion that the government should follow the precepts of business process re-engineering as a result of the availability of technology is, we would argue, a dangerous one. The provision of information by government to the citizen should be designed to satisfy the needs of the government and the citizen and not simply to demonstrate the application of new technologies. Milner[38] in describing a project investigating and evaluating, from the citizen's perspective, the current and potential impact of applying ICTs in the public sector, argues for the move away from a need for 'computer literacy in people' and towards 'people literacy in computers', claiming the need for extensive research into the real potential for achieving improvements for citizens via technology, before huge sums are expended on systems that may fail.

The *Electronic Government* report concluded that 'the real views of the citizen 'customer' on fundamental change have not been tested extensively. Consensus conferences could address different models of information support ... [and] ... could address different models in much more detail to test their strengths and weaknesses'[28]. There is a real need for further research to explore citizen's attitudes to the provision of information by and about government. The first stage of the Citizenship Information project has demonstrated that nearly 80% of respondents felt that access to information was important in the exercise of their rights as citizens. The second stage of the project will look further at the ways in which information is accessed and used in the interaction with government by the citizen. The authors hope to conduct future related research which will consider the impact of possible exclusion from access to this fourth right of citizenship - the right to information and advice - upon the ability of groups and individuals to participate in society.

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