

Information Literacy for an Active and Effective Citizenship

Ana Maria Ramalho Correia, Professora Associada com Agregação
Instituto Superior de Estatística e Gestão de Informação
Universidade Nova de Lisboa, Campus de Campolide

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Abstract

Contemporary citizenship and democracy encompass a wide range of political, civil and social rights and responsibilities for both the individual and the state. An active, effective and responsible citizenship, in contemporary times, requires that people be empowered to exercise those rights and responsibilities towards other people, the community and the state. Citizens should be vigilant regarding the responsiveness of the state towards them and the members of their community and should be motivated to participate in public life. To participate, each person needs to acquire specific skills. Education for citizenship should be continuous, both in the formal education system and in the more informal adult education for lifelong learning. These skills range from literacy, to communication and information literacy skills. They enable one to locate, access, retrieve, evaluate, interpret and act on information to be able to participate in community affairs, to develop community involvement and to have an informed opinion about problems occurring locally, nationally or internationally. In most developed societies, an increasing volume of information for citizenship is produced by or about national and local government, government departments and public sector organizations on the Internet; political parties, civic societies and interest groups are increasingly using bulletin boards, chat groups, list servers and e-mail to communicate with their membership and to promote civic engagement skills through the use of Information and Communication Technologies. These are being seen, by some, as a valuable supplement to traditional forms of communication and in some cases may even become an alternative way to communicate.

However, policy makers at national and global level, when devising strategies to facilitate progress towards an information literate citizenry cannot ignore the Digital Divide. This term, now commonly used to describe inequalities that exist regarding the use of Internet and other telecommunication services, encompasses divergence of access between industrialised and developing societies, the gaps between the information rich and the information poor in each nation, as well as the difference between those who do and those who do not use digital resources to engage and participate in public life.

This paper offers some insight into how to foster the development of information literate people for an active, effective and responsible citizenship; it considers the development of information literacy skills within “education for citizenship” programmes both in the formal education system and in the informal adult lifelong learning schemes. The role of public libraries, school libraries and other public and civil society institutions will be pointed out, as well the importance of promoting the acquisition of information literacy skills by those that act as intermediaries to the disadvantaged groups in society. Information policies that may have an impact on the access and provision of information for citizenship will be explored. Some key areas requiring further research will be pointed out.

1. CITIZENSHIP

In the political tradition of the Greek city states (*polities*) and the Roman republic (*res public*), citizenship means participation in public life and involvement in public affairs by those who have the rights of citizens: to take part in public debate and directly or indirectly, to shape the laws and decisions of a state.

The French Revolution and its aftermath, created a constant pressure to broaden from a narrow citizen class of educated property owners, to achieve female emancipation and include every member of society—the economically deprived, those who are terminally ill or have physical disorders, the unemployed, as well as the elderly—to achieve freedom of speech, equity and justice before the law and to make transparent the process of government. Citizenship can be described as participation in a community, particularly the relationship between the individual and the state.

Contemporary citizenship is facing formidable challenges from several quarters—political and economic integration, such as the formation of the European Union; fragmentation of previously united multinational political communities (such as Yugoslavia, the Soviet Union, Czechoslovakia); mass migration and the flux of asylum seekers; and mass unemployment—they all exclude millions of people, even in the richest nations, from a sense of full membership in the civic community. The problems of citizenship, exacerbated by ethnic conflicts, create a dichotomy between national identity and citizenship; cultural inclusion in societies that are each time more multicultural constitutes new challenges for modern citizenship (Beinern, 1995).

In a well-known analysis by Marshall, in 1950, the concept of citizenship was divided into three elements—civil, political and social (Barbalet 1988; Beiner 1995).

Later, Turner (1993) and others criticised the Marshall theory as it did not cover the economic and cultural elements of citizenship. They expanded the citizenship definition by including reference to a collection of practices that individuals need to become competent members of their community.

All of the above elements involve reciprocity between *rights* and *responsibilities* for both the individual and the state. For example, political rights are the rights to participate in the exercise of the political power including the right to vote, to make democratic choices, to hold institutions to account (*i.e.* national and local government funded bodies have to prove they are efficient, effective and economic). Civil rights concern the right to freedom of speech, thought and faith, the right to own property, and the right to justice and equality before the law. Social citizenship stretches the notion to include a range of rights to economic welfare and security, the right to share, to the full, in the social heritage and to live the life of a civilized human being, according to the standards prevailing in society, *i.e.* the right to employment, housing, health care and other social welfare benefits. Cultural rights are those that enable an individual to play a full part in the culture of a community – in this sense, all organizations in the education system and cultural heritage (or communal memory) organizations (such as, libraries, museums and archives) make a fundamental contribution to cultural citizenship.

In turn, citizenship *responsibilities* include upholding the law, in letter and spirit, to participate in the public process, including both support and opposition to established policies (Mosco, 1998).

The importance of the *Civil Society* is increasing for contemporary citizenship and the sustainability of democracy. This means membership of non-official, voluntary groups, at local, national and international level and membership of social movements whose links to government and businesses are tenuous, but which aim to represent constituencies for or in opposition to the state and the private sector (Mosco, 1998). Freedom and full citizenship in the political sphere is strengthened in

a society where participation in informal groups, involving voluntary and communal activity is encouraged and will reinforce electoral turn-out, attention to public issues in media, and citizens' involvement in election campaigns and demonstrations (Klein, 1999).

In this context, contemporary citizenship is in a state of flux: changing laws; changing rights and responsibilities; impacts of Information and Communication Technologies (mass media, mass communication, Internet) and related global trade agreements are all urging people to "think globally" as opposed to the notions of "national belonging/national identity" (Mosco, 1998).

The objective of this paper is to provide an insight on how policy makers, globally and at national and local level, can create an environment that will develop information literate workers and citizens. This is a complex undertaking, because the world is "digital divided," and the details of individual rights and responsibilities vary between states, reflecting the details of its political, civil and social structures (Steele 1997, p. 4). Norris (2001) clarifies this aspect by stating,

Democracies differ significantly in their core institutions and constitutional features, mostly in terms of their majoritarian or proportional electoral systems, the range of competition in party systems, whether executives are parliamentary or presidential, whether the state power is centralised or dispersed. These institutional structures have significant consequences for patterns of political participation such as levels of voting turnout and types of election campaigning, as well as in the rates of party membership and activism (¶ 6).

1.1. Active and Responsible Citizenship

Contemporary citizenship faces challenges that are highlighted in the report "*Education for citizenship and the teaching of democracy in schools*," published in 1998, by *Qualifications and Curriculum Authority*, on behalf of the *Citizenship Advisory Group*, of the UK Parliament. These are:

.... citizens must be equipped with the political skills needed to change laws in a peaceful and responsible manner;

... individuals must be helped and prepared to shape the terms of such (civic) engagements by political understanding and action;

... volunteering and community involvement are necessary conditions of civil society and democracy (QCA 1998, p. 10).

The report also points out that preparation for these skills and competences, at the very least, should be an explicit part of education. This is especially important at a time when governments worldwide are attempting a shift of emphasis from state welfare provision and responsibility towards community and individual responsibility.

The same report claims that "active citizenship and civic engagement" involves "social and moral responsibility," "community involvement and service to the community" and "political literacy;" it goes on to explain,

... it involves participation in the affairs of one's community – these require concepts of fairness, and attitudes to the law, to rules, to decision-making, to authority, to local environment and social responsibility;

... "community involvement" becoming helpfully involved in the life and concerns of one's communities, including community involvement and service to the community ... participating in voluntary bodies by exercising persuasion, interacting with public authorities, publicising, fund-raising, recruiting members and then trying to activate them, ... ;

... "political literacy," knowledge of how to make one effective in public life through knowledge, skills and values ... encompass realistic knowledge of and preparation for conflict resolution and decision making related to economic and social problems of the day, including each individual's expectations of and preparations for the world of employment, and discussion of allocation of public resources and the rationale for taxation. These skills are required whether these problems occur in locally, nationally or internationally concerned organizations at any level in society from formal political institutions to informal groups, both at local or national level (QCA 1998, p.11, 12, 13).

In turn, the report *Education for Citizenship*, a paper for discussion produced by *Learning and Teaching Scotland* (2001), the advisory body for Education, in Scotland extends the concept for an active and responsible citizenship further, to the notion of "corporate citizen:"

Active and responsible citizenship is not just about individuals having a sense of belonging to, and functioning in communities. It is also an aspect of corporate or institutional life. Just as a key facet of each individual's citizenship should be a caring and responsible use of material and financial resources, business organizations also have a responsibility, as "corporate citizens," to achieve their economic goals in ways that are consistent with sustainable development and with health and welfare communities. (p. 2)

In short, if citizenship is about making informed choices and decisions, about taking action, individually and as part of collective processes, to play a full part as active citizens and to be civically engaged through the exercise of moral responsibility, community involvement and exercise of their rights and responsibilities, then people need to acquire participatory skills. In parallel, they need to be information literate, at least at a basic level. They need the skills to enable them to locate, access, retrieve, evaluate, interpret and act on information, in order to identify, monitor and anticipate problems and communicate needs. They need to be able to exercise political, civil and social rights and responsibilities for self and others. Communication skills are also an essential element for an active and responsible citizenship, as people need to communicate to be able to express ideas and opinions with the confidence that they will be heard and taken into account.

2. FROM LITERACY TO INFORMATION LITERACY AND DIGITAL LITERACY

Literacy (derived from Latin *litteratus*) is a concept that has had a variety of meanings and has been evolving over time, to include skills needed for one to perform well in one's society. The simplest form of literacy involves the ability to use the language in its written form: a literate person is able to read, write and understand his or her native language (Bawden, 2001). Reading, writing and arithmetic (the 3R's) are still the basics of Literacy but additional skills are now required to gain the advantages of information delivered in different media through Information and Communication Technologies (ICT) and the Internet (Langford, 1999).

With the progression of democracy around the world, the evolution of the economy has moved from requiring skilled craftsmen, through industrial manufacturing to an information and knowledge society where information replaces land and capital as a source of wealth. The increasing permeation of Information and Communication Technologies and the proliferation of information being stored in computers is a sure indication that information is becoming central to our social, economic and political system.

Recent developments in ICT's have made it easier for individuals to access information; the impact of the Internet and other electronic and digital resources, enable people to use more methods and sources than ever before, to satisfy their information needs. They have highlighted the importance of acquiring a new range of skills for using information in its digital form; these skills have been encapsulated in the term, "information literacy."

The literature offers several definitions, explanations and clarifications of what "information literacy" is. The term "information literate" was first introduced, in 1974, by Zurkowski (the then President of the US *Information Industry Association*), to identify people "trained in the application of information resources to their work" (cited in Carbo, 1997, Definitions and discussion, ¶ 2). He put forward recommendations to the US government that it should establish a national programme aimed at achieving widespread, work-related information literacy (Webber and Johnston, 2000).

Bawden (2001) in his review on "information literacy" and "digital literacy" attempts to clarify related "concepts" and a "multiplicity of terms," which are often used synonymously. Some of these are:

- information literacy;
- computer literacy: (synonyms: IT/information technology/electronic information literacy);
- library literacy;
- media literacy;
- network literacy: synonyms – Internet literacy, hyper-literacy;
- digital literacy: synonym – digital information literacy (p. 219).

Numerous authors quote the *American Library Association's* (1989) definitions:

To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information.

Information literacy is the ability to access, evaluate and use information from a variety of sources.

Other definitions of the information literate person tend to cover the same elements, but expand them in one way or another (Langford, 1999).

For example, Doyle (1994) defines an information literate person as one who:

- recognises the need for information;
- recognises that accurate and complete information is the basis for an intelligent decision-making;
- identifies potential sources of information;
- develops successful strategies;
- accesses sources, including computer based and other technologies;
- evaluates information;
- organises information for practical application;
- integrates new information into an existing body of knowledge;
- uses information in critical thinking and problem solving.

Webber and Johnston (2001b) propose a broad definition as:

Information literacy is the adoption of appropriate information behaviour to obtain, through whatever channel or medium, information well fitted to information needs, together with critical awareness of the importance of wise and ethical use of information in society.

Such a definition is the one preferred by the author, in the context of this paper, as it applies equally as well to the set of basic skills that should be used by everyone to exercise his/her own citizenship in the widest sense, right up to those required by the information specialist.

The *Information Skills Taskforce* of the *Standing Conference of National and University Libraries* in UK (SCONUL, 1999) developed a model for information literacy. Its *Seven Pillars of Information Literacy* can be seen as a progression from basic skills to the more sophisticated (Webber and Johnston 2001a, 2001c). It provides a good framework to examine the knowledge the average citizen requires to be an active and effective citizen. It can be divided into two sets of skills:

- Knowing how to locate and access information.
- Knowing how to understand the information and put it to use.

2.1. Knowing how to locate and access information.

(Pillar 1) Recognize information need – knowing what is known, knowing what is not known and identifying the gap;

(Pillar 2) Distinguish ways of addressing the gap – knowing which information sources are likely to satisfy the information need;

(Pillar 3) Construct strategies of locating – knowing how to develop and refine a search strategy;

(Pillar 4) Locate and access – knowing how to access information sources and search tools to access and retrieve information.

The basic expertise, required to locate and access information is common to all topics; it can be taught at all levels of education and enhanced by regular use and lifelong learning. The natural curiosity of our children can be stimulated and encouraged; they can be taught to satisfy that curiosity by educating them in the best practices of information literacy. If they choose to take part in the life-long learning process, they can add to and enhance their skills to become active and effective citizens.

2.2. Knowing how to understand and use information.

(Pillar 5) Compare and evaluate – knowing how to assess the relevance and quality of the information retrieved;

(Pillar 6) Organize, apply and communicate – knowing how to associate new knowledge with that already known, as a result of previous experience, to take actions or make decisions and being able to transfer knowledge of these actions or decisions to others, as necessary;

(Pillar 7) Synthesize and create – knowing how to associate new knowledge, with that already known, to provide fresh insights and create new knowledge.

Expectations may and should be high but goals should be realistic and achievable, for the average citizen. SCONUL Pillars (1) to (4) are realistic and can be achieved if learning for information literacy is included in the curriculum at all levels of education and opportunities for lifelong learning are provided. Some recent initiatives and projects are reviewed later.

Pillars (5) through (7) are more problematical, since there is no such thing as the average citizen when it comes to occupation, trade, or profession. These all require specialized knowledge and many of them have their own “languages” or jargon. If the citizen stays within his or her sphere of expertise, then there should be no problem with pillars (5) through (7). Once outside that sphere, the average citizen should not be expected to have the knowledge to understand information concerned with, for example, the medical, financial or legal disciplines, unless the information is given in a form, which is designed for general consumption. Here, it is the responsibility of the information provider to ensure that the information provided is suitable for the average citizen, whatever his or her calling.

No one can know everything; this must be accepted and accounted for in any policy or strategy to improve Information literacy in our society. There will always be a need for advisers, counselors, Citizens’ Advice Bureau and the like to interpret and translate information. Any policy should be aimed at providing choice and opportunity:

- Choice to be an active and effective citizen, or not.
- Opportunity to learn Information literacy skills, as required.

Therefore, realistic goals must be set for our information literacy programs and allowances made for those Information Intermediary activities that enable the average citizen to understand specialized information and convert it into knowledge.

3. INFORMATION AND COMMUNICATION TECHNOLOGIES AND CITIZENSHIP: THE DIGITAL DIVIDE

This is the dawning of a new era of communication—one in which networked computer and communication systems are becoming part of the daily life of a significant part of the population worldwide. More and more information is becoming available via these technologies. With the size of the online community doubling every year (Clark, 2001a), the number of sites on the Internet increasing exponentially and the costs of transmission decreasing exponentially (PNUD, 2001), the Internet assumes ever-increasing importance for transforming the way people live, work and play; concomitantly, it is fast becoming the way organizations communicate, trade and do business.

However, as a result of economic underdevelopment, lack of investment in the technological infrastructures, lack of resources, education and training opportunities and a shortfall in skills, people around the world are rapidly being separated into those that have access to computers and global networks such as the Internet and those who do not, and those who are information literate and those who are not. This brings new concerns to policy makers nationally and internationally, as the United States Congress put it:

...the opportunity for people to participate in economic, political and cultural life depends on their ability to access and use information and communication services. Individuals need skills and tools to locate the communication pathways, information and audience in timely fashion and in appropriate format. Unequal access to communication resources leads to unequal advantages, and ultimately to inequalities in social and economic opportunities. (Adam, 1997)

“Digital Divide” is a term now commonly used to describe the inequalities that exist with respect to the use of Internet and other telecommunication services; it is a shorthand for every and any disparity within an online community (Clark, 2001a). Digital Divide has become the accepted term for referring to the social implications of unequal access for some sectors of the community to Information and Communication Technology and acquisition of the necessary skills (Foster, 2000, Cullen, 2001; Cawkell, 2001).

International organizations, like OECD and the United Nations, publicise the fact that so far, the benefits of the Internet are concentrated in the wealthier (more affluent) nations and societies and have not yet filtered down to Southern, Central and Eastern Europe, let alone the poorest areas of Sub-Saharan Africa, Latin America and South-East Asia (OECD, 2000). Globally, this divide mirrors the first and the third world divide, with African countries, in particular, significantly less connected than first world countries (Clarke, 2001a).

For example, some recent reports on the state of development of Internet in Africa reveal that there is a long way to go to achieve the levels of other regions (Chivanga, 2000; Adam, 1997).

The *1999 UN Development Report* argues that productivity gains from information technologies may widen the gap between the most affluent nations and those that lack the skills, resources and infrastructure to invest in the information society:

The network society is creating parallel communications systems: one for those with income, education and Internet connections, giving plentiful information at low cost and high speed; the other for those without connections, blocked by high barriers of time, cost and uncertainty and dependent on outdated information (p. 63).

Norris (2001) considers the Digital Divide as a multidimensional phenomenon encompassing three distinct aspects:

- the *global divide* – which refers to the divergence of Internet access between industrialised and developing societies;
- the *social divide* – concerns the gaps between information rich and information poor in each nation; and lastly within the online community,
- the *democratic divide* – signifies the difference between those who do and do not use the panoply of digital resources to engage, mobilize and participate in public life. (p. 1)

The *2001 UN Development Report* in highlighting the continuing existence of an unequal diffusion of Information and Communication Technologies—the digital inequality, makes the reduction of this inequality a global objective (PNUD, 2001).

Leaders from G8 also highlighted the problems of exclusion from the knowledge economy, by including in the *G8 Charter on the Global Information Society* issued at the 2000 Summit in Okinawa, some initiatives to bridge the “Digital Divide.” They said:

Our vision of an information society is one that better enables people to fulfill their potential and realize their aspirations. To this end we must ensure that IT serves the mutually supportive goals of creating sustainable economic growth, enhancing public welfare, and fostering social cohesion, and work to fully realise its potential to strengthen democracy increase transparency and accountability in governance, promote human rights, enhance cultural diversity and foster international peace and stability. (G-8 Okinawa, 2000)

The European Union (EU) prioritised social inclusion as one of three key objectives when launching the *eEurope 2002 Action Plan* (CEUCEC, 2000) in Lisbon in 1999. In this Action Plan, the EU clusters the actions around:

- A cheaper, faster, secure Internet, - Investing in people and skills,
- Stimulate the use of Internet.

However, most of its efforts seem to be focused on getting the technological infrastructure in place; in providing access to information technology tools, the Internet and the information services provided by the Government and the public-private sector; and in supporting the development of ICT skills (European Computer Driving License), rather than on “information literacy.”

The United States Department of Commerce has drawn attention to the disparities and the gaps between the “haves” and the “have-nots” in successive studies since 1993. These studies have emphasised the lack of access to computers and the Internet commonly found among poorer households, those with limited education, the African-American and Hispanic populations, rural communities and woman and girls (NTIA, 1999). In October 2000, the *National Telecommunications and Information Administration* (NTIA) published a report on the information and telecommunications gap in America. The report was titled *Falling through the Net: Towards Digital Inclusion*. The report acknowledges that the Digital Divide is one of the leading economic and civil issues; it recognises that the gap between the “haves” and the “have-nots” in American society is decreasing, with more households getting access to the Internet, but that the Digital Divide still exists.

These and other international studies indicate that a range of social factors influence the severity of the Digital Divide. Research in both Australia and United States suggests that sharp inequalities exist in Internet access according to income, education and age. The OECD has documented similar patterns of stratification within Internet populations across developed countries. People with disabilities and single parent families are also less likely to have Internet access (OECD, 2000).

The findings of these studies highlight several interlinked factors, which cause the Digital Divide: race and ethnicity, geography, income, education level, single parenting, employment status and physical disability. Individuals affected by any of these factors are certainly more likely to be found in the “have-nots” part of society. Those more likely to be online are the younger, more educated and upper income professional citizens.

The chief concern about the Digital Divide is that the underclass of info-poor may become further marginalized in societies where basic computer and information literacy skills are becoming essential for economic success and personal advancement. These skills determine career prospects, educational opportunities, access to social networks and opportunities for civic engagement and the exercise of one’s rights and responsibilities. In other words, the Digital Divide can be self-reinforcing if it is not recognised and addressed in time.

Clark (2001b) claimed that:

One of the concerns of policy makers nationally and internationally is the increasing gap between the IT “haves” and the IT “have-nots.” If this issue is not addressed, society will have lost the opportunity to use new telecommunications advances to strengthen social cohesion.

Barriers to IT access can take many forms. Illiteracy, poverty, old age, gender, physical disability such as blindness, remote locations, and technical phobia are but a few of the problems. Even worse, some groups in society are challenged by multiple barriers. Also, many of the agencies who have a mission to assist people in these disadvantaged groups (e.g. Elder Care Groups) themselves lack IT access... (¶ 1, 2).

On the other hand, Internet diffusion may be seen as an advantage for poorer societies, as it provides multiple opportunities for socio-economic and democratic development. Digital networks have the potential to broaden and enhance access to information and communications for remote rural areas and poorer regions. They can strengthen the process of democratisation under transitional regimes, ameliorate the endemic problems in the developing world and offer more effective methods for the dissemination of government policy and public information. These networks are an obvious medium for dissemination of educational materials and content and for coordination of educational administration. As Daly (2000) puts it:

... many of these benefits can be shared by entire populations, and indeed to the benefit of the poor and needy even more than the affluent. However there are also threats to developing countries. It is not hard to imagine Internet scenarios in which brain drain is increased, (...) undesired transfers occur from cultures of countries with more content on the web to cultures within developing countries, (...) insurgents use the Internet effectively in their efforts to destabilise democratic governments. (p. 297)

If the promise of Internet for the developing countries is to be realised, if the threats resulting from the development and dissemination of Internet are to be reduced or eliminated and the role of Internet in developing countries is to increase equity and social and economic development, then

adequate policies must be implemented. There is a need for proper channeling of financial resources, development of adequate technological infrastructure and creation of adequate training opportunities for skills acquisition, including information literacy skills.

To aid diffusion of Internet, worldwide there are several initiatives to connect the poorer communities, through public libraries, schools and community centres. However, the rate at which such technological diffusion can take place is very low and casts a dubious light on rosier scenarios, which project widespread connectivity for ordinary citizens in developing countries.

4. DIGITAL CITIZENSHIP / DEMOCRACY

Diffusion of the Internet has generated interest in its application to democratic politics; the Internet offers a new opportunity for increased citizen participation in public affairs. For example, civic networks have linked together citizens in local communities, offering easier access to public information and promoting greater citizen involvement. In public administration and governance the Internet has been used to decentralise administrative operations. Online activists, participating in petition campaigns, elections and other activities, achieve notable success (Klein, 1999). A new virtual political system is emerging, in which the government and civic societies are adapting to information and communication technologies to create new opportunities for promoting civic engagement and participation.

The Internet is providing new methods to achieve many-to-many communications, through bulletin boards, chat groups, list servers and e-mail. These are a valuable supplement to traditional forms of communication and some even see it as an alternative, interactive channel of communication.

The new technologies are attractive as they have the capacity to remove barriers and allow greater transparency in the policy-making process, promote wider public participation in decision-making and create new opportunities for mobilization in electoral campaigns.

It is expected that the implementation of such a political virtual system will make it possible to counteract the disengagement evident, at least in Western societies, where the public become more and more disenchanted with traditional institutions of representative government, detached from political parties and disillusioned with older forms of civic engagement and participation.

The Internet also introduces some barriers of its own. It requires investment in computers and communications hardware, financial resources to pay the Internet service providers, and time to acquire skills of information literacy.

These barriers make it likely that, for the immediate future, the Internet's potential to promote democracy will be exploited only by an educated elite with financial resources and information literacy skills.

Education for citizenship, including information literacy, is necessary, if the virtual systems are going to succeed and higher levels of pluralistic competition and political participation are encouraged to provide more opportunities for civic deliberation and public debate.

5. POLICIES AND STRATEGIES FOR THE PROMOTION OF AN ACTIVE AND RESPONSIBLE CITIZENSHIP

This part of the paper aims to systematize and provide some insight as to how to nurture the development of information literate people for an active, effective and responsible citizenship.

It is grounded on an analysis of illustrative cases/initiatives identified by a search of the literature and the Internet, which took place from mid-January to mid-February 2002. The search strategies are explained.

5.1. Methodology

Searches were carried out on the DIALOG suite of databases, specifically the following:

- *ERIC*
- *Library and Information Sciences Abstracts (LISA)*
- *Public Affairs Information Service (PAIS)*
- *Social SciSearch*

The search strategy took account of all “information literacy” related terms (Bawden, 2001) as follows:

Infoliteracy or information literacy or network literacy or Internet literacy or digital literacy or IT literacy or Information Technology literacy or computer literacy or electronic information or media literacy AND Citizenship

Details in the bibliographies of relevant journal articles retrieved were also followed up; some produced valuable extra material.

Authors of relevant papers, addressing information literacy issues, were contacted via e-mail, to ask for further information on those initiatives where the development of information literacy competences for an active, effective and responsible citizenship might have been considered. These contacts were very valuable; their replies generally indicated that the link between the two subjects (information literacy, on the one hand, and active, effective and responsible citizenship, on the other) had not yet been established. Even so, some provided leads that were followed up to look for related topics.

An information request for any initiatives that may be addressing the development of “information literacy competences for an active, effective and responsible citizenship” was posted, on 2nd of February 2002, to the *Democracies Online Newswire (DO-WIRE)* (www.e-democracy.org/do), which has around 2300 subscribers, (Steven Clift, e-mail, 29 January 2002). This provided around a dozen responses some of them pointing to URLs of projects that could be of relevance to the objectives of the search, or provided electronic versions of relevant papers. The projects’ Web sites have been explored.

A search on *QuickLinks* was performed under the heading “Digital Divide,” and provided some insight regarding policies in this area.

Several Internet searches were performed, using *Google* as the main search engine, applying the same keywords. One of the main problems was the very large number of references retrieved and the false drops. There was a need to be selective; the intention was not to be exhaustive but to find

relevant initiatives that could provide a broad picture and shed light on policies and strategies to develop information literate citizens.

This search engine was also used to locate electronic preprint versions of some relevant papers.

5.2. Policies and Strategies

Analysis of the results obtained gave a typology of the policy initiatives that should be considered by policy makers when seeking to promote the development of an information literate citizenry in their countries; they fall within three broad groups:

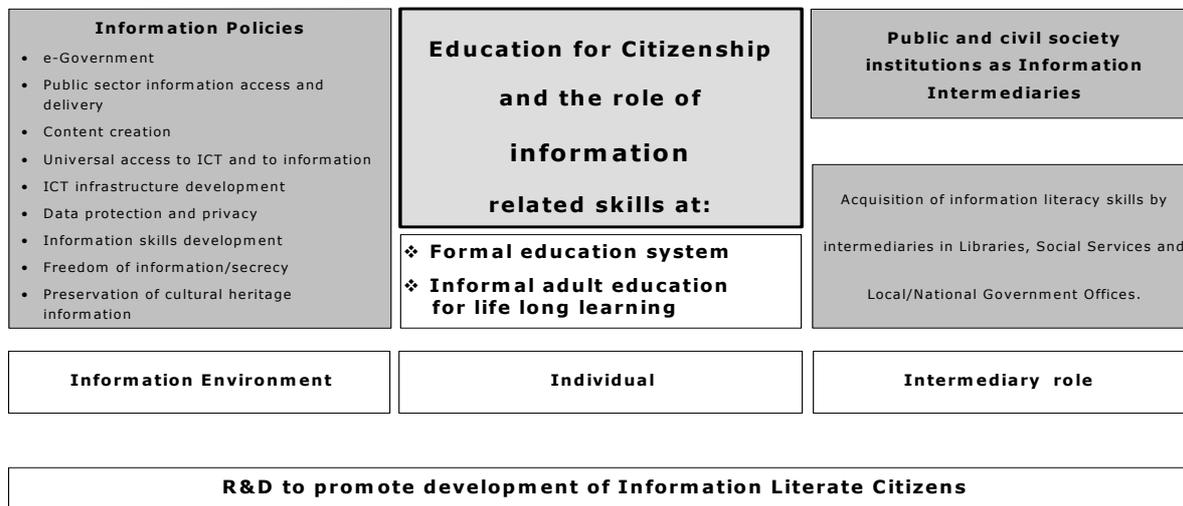
- (i) Education for Citizenship (as a continuous process, both in the formal education system and in the informal adult education system for lifelong learning) – the role of information related skills is explained;
- ii) Creation of an information environment, through the implementation of Information Policies - with the emphasis on access and provision of quality information for citizenship;
- iii) Public and Civil Society Institutions as Information Intermediaries.

These policies are illustrated in Figure 1. Education for Citizenship is shown as the cornerstone for the development of an information literate community. Furthermore, it is necessary to create an adequate information environment with support provided by information literate intermediaries in civic associations and public organizations. Together, they can promote a vibrant culture of democratic participation, where citizens exercise their rights and responsibilities and contribute to the community.

The details of this model are discussed and justified in the following paragraphs.

Figure 1

**DEVELOPMENT OF INFORMATION
LITERATE PEOPLE FOR AN ACTIVE,
EFFECTIVE AND RESPONSIBLE CITIZENSHIP**



5.2.1. Education for Citizenship

Education for Citizenship prepares people to be actively and effectively involved in their own governance and not just passively accepting the dictate of others and acquiescing, without thought, to their demands. In a democratic society, the likelihood of affecting political and social change depends on its citizens having the knowledge, the skills and the will to bring about change. These traits are the products of a good civic education, which prepares citizens for active and effective participation in the community.

Civic participation is essential, in order that citizens are empowered to found, build and sustain their democracies. As Branson (1999) puts it,

Civic education (...) is – or should be – a prime concern. There is no more important task than the development of an informed, effective, and responsible citizenry. Democracies are sustained by citizens who have the requisite knowledge, skills and dispositions. Absent a reasoned commitment on the part of its citizens to the fundamental values and principles of democracy, a free and open society cannot succeed. (¶ 4)

This need of Education for Citizenship is so much more important now, when the world is undergoing intense social change: economies are being globalised and there have been urgent demands from people from Asia and Africa, from Central and Eastern Europe to Latin America, all seeking to introduce democracy in their countries.

Education for Citizenship should, however, not be separated or isolated from life's learning processes. It should be an essential part of the *formal education system*, from pre-school up to University level and beyond as part of *informal adult education for lifelong learning*.

As the paper for Consultation and Discussion *Education for Citizenship in Scotland* (2001) puts it:

The citizenship that formal education should seek to promote and foster needs to be *thoughtful* and *responsible*—rooted in, and expressive of, a respectful and caring disposition in relation to people, human society generally, the natural world and the environment. It should be also *active*, in the sense of people being able to act and participate in various communities, wherever it seems to them desirable or appropriate to do so. (p. 3)

Prior (1999), in a study in which explored the perceptions of citizenship among teachers, parents and students, at a school in Australia, argues that,

... a whole school approach to the development of citizenship education programs is much more likely to be successful than when a centrally developed curriculum is imposed on teachers without consultation with the school community. (p. 215)

Education for citizenship should also be part of *informal adult education for lifelong learning strategies*; this should be available through civil society organizations and state agencies. Preparing people for democracies must be established and then maintained, especially for newly established democracies. Furthermore, informal adult education for citizenship is essential whenever mass movement of citizens occur (including persons displaced as a result of war); when a new Constitution is adopted or electoral laws amended; when there are changes in electoral practices; during the introduction of new representational systems; for the creation of a permanent election authority or representative bodies at local level; during the growth of political parties and civil society groups (ACE, 2002).

Informal Education for Citizenship should take into account the diversity of local communities and other societal influences, such as the person's background and the mass media. It should enable the citizen to seek the information necessary, to take part in an election and to make communal decisions in an ever-changing and challenging democracy.

In either case—formal education or informal education for lifelong learning – the development of information and digital literacy competences are at the centre of active and effective citizenship, today and in the future. Living in tomorrow's world will require factual and conceptual knowledge from a wide range of domains, in order to make sense of and arrive at informed decisions about matters that are important for individuals and their communities.

5.2.1.1. Information Literacy in Education for Citizenship

To respond, effectively, to an ever-changing environment, people need more than just a knowledge base. They need techniques for exploring, making connections, and making practical use of information. This becomes even more acute with lengthening life spans and increasing leisure time. Information literate citizens know how to use information to their best advantage, both at work and in everyday life. They identify the most useful information when making decisions, when voting or to participate in community life. They are able to evaluate newscasts, advertisements and political campaign speeches, recognising when statistics have been inappropriately used to influence thinking on a complex issue. Current policy questions are rather complex and often of a local,

national and international nature. Information literate citizens are able to recognise misinformation, deception or disinformation and make informed decisions. They are able to appreciate the true value and power of information.

Information Literate citizens understand the need for quality information to address problems and questions in their own lives, in their communities and in society, as well as the need to analyse, question and integrate the information available into their own bodies of knowledge and experiences.

The need for information literacy skills is described in a number of documents and projects addressing Education for Citizenship issues, for example:

- i) The Consultation Paper *Education for Citizenship in Scotland*, produced by *Learning and Teaching Scotland* (Learning ... 2001) is about education for citizenship in Scotland, in Scottish schools (5-18 years) and which describes the areas of relevant knowledge and generic skills relevant to citizenship. They are mostly information related skills:
 - Communication skills, ... for example being able to research, discuss and share information about social, political and community issues ...;
 - The ability to work with numerical information, for example being able to examine statistics, regarding various social and economic issues and to consider ways in which they are used and abused;
 - ICT skills, for example using ICT, to analyse situations, events and issues, to communicate effectively, to find and handle information, to make contact with people and organizations around the world;
 - problem solving skills ... (Learning and Teaching Scotland, 2001, p. 15).

These information-related skills fit with those Doyle (1994) used to define what an information literate person should have, or those indicated by the *Seven Pillars of Information Literacy*, developed by SCONUL (1999).

- ii) Project “*We the people – Project Citizen*” (Center...), promoted by the US *Center for Civic Education*.

It is a civic education program for middle school students that promote competent and responsible participation in state and local government. It actively engages students in learning how to monitor and influence public policy and encourages civic participation among students, their parents, and members of the community. To achieve the learning outcomes, the students develop a class project where they have to:

- identify a public policy problem in their community;
- gather and evaluate information on the problem;
- examine and evaluate solutions selected;
- develop a proposed public policy;

- develop an action plan.

The approach used is one of cooperative learning, guided by the teachers, in which the skills developed fall very much within the range of information literacy competences.

- iii) Citizens are increasingly expected to interface with a government using ICT; increasingly, citizenship is being mediated by digital communications, (Hernon, 1998) as political parties interact with members online and civic associations use Web sites and email to convey their messages. Media organizations continuously update the flow of news on their information-rich sites (Schulman, 2001) and increasingly people search for health and environmental information on the Web (Beierle and Cahill, 2000). In this context, Mosco (1998) says that:

.... citizenship in the new electronic age means treating cyberspace as a public space or “new commons” to which all people have equal rights of access and participation, reasonable expectations of privacy and security, and, along with these rights, civic responsibilities of active involvement in this new commons and mutual respect for fellow cybercitizens. (¶ 16)

Following this line of thought, the author believes that education in cyberspace should be about teaching people to be citizens, not just to be consumers of information. It also emphasises the importance of Education for Citizenship in teaching ethical behavior, concerning the use of information and ICT.

As a final point on Education for Citizenship, two initiatives that illustrate “Education for Citizenship” within the *informal adult education for lifelong learning system* are:

- i) *ACE Project – Administration and Cost of Elections Project*, promoted by *IFES – International Foundation for Election Systems; International Institute for Democracy and Electoral Assistance* (International IDEA), UN-DESA – *United Nations Department of Economic and Social Affairs*.

The *ACE Project* site (www.aceproject.org/) provides a very rich repository of electoral governance materials, in the pages on "Voter Education."

- ii) NFIL (National Institute for Literacy). *EFF: Equipped for the Future*.

Equipped for the Future – EFF (literacy.kent.edu/EFF/toc.html) is a US project of the *National Institute for Literacy - NIFL*, a creation of the National Literacy Act of 1991, which seeks to answer the question “What is it that adults need to know and be able to do in order to be literate, compete in the global economy and exercise the rights and responsibilities of citizenship?” The philosophy behind *EFF* is that adult learners themselves are best able to determine their own learning needs. The activities are aggregated around four main areas:

- i) *Need to Access Information*, so that adults can orient themselves in the world;
- ii) *Voice*, to enable to express ideas and opinions;
- iii) *Independent Action*, to enable to solve problems and make decisions on one’s own; and
- iv) *Learning to Learn*. Obviously, the learning of knowledge skills underlines all these components.

In short, both of the projects emphasise the need to acquire competences on information handling either explicitly (EFF) or implicitly (ACE).

5.2.2. Creation of an information environment for citizenship, through the implementation of Information Policies

Provision of and access to citizenship information are basic elements for successful participation in the democratic process. These topics are widely discussed in the literature and involve those in the information profession as well as those involved in political life. They are also a major concern in the context of Education for Citizenship. To illustrate what has been achieved, regarding studies on citizenship information provision and citizens' use and seeking behaviors, two recent projects are singled out to demonstrate the wide variety of issues at stake.

The project *Citizenship Information*, funded by the British Library Research and Innovation Centre, aimed to investigate the citizenship information needs of the UK public and their preferred routes to the acquisition of such information; this completed in May 1999 (Marcella and Baxter 1999). In the course of this project, the following definition of Citizenship Information was developed:

... 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 (p. 1).

The main objectives of this project were:

- to investigate the extent to which members of the public in the UK have expressed or unexpressed needs for citizenship information;
- to explore their preferred routes to the acquisition of such information;
- to investigate both the suitability and approachability of the public library among other agencies, for user seeking citizenship information (Marcella and Baxter, 2000).

The results were published over several articles in the specialised literature; they give a typology of the information needs of the respondents, their information seeking behavior and the perceived importance of information to citizens, to support their participation in the community. The researchers recommended further research to explore,

... the apparent lack of certainty of the importance of information amongst young people...

... how access to information may support citizens in participation, maintaining a self-sufficiency and improving economic standing; and the investigation of the negative impact of a lack of access to information (Marcella and Baxter 1999, p. 132).

Steele *et al.*, in 1997, carried out a study on *Information for Citizenship in Europe*, whose aim was:

... to explore the extent of the current and potential demand for citizenship information within the European Economic Area and to identify the contribution that the information services industry can make to meeting that demand (Steele, 1997, p. 1).

This study was carried out in the United Kingdom, Germany, Ireland, the Netherlands and Portugal, as members of the European Union; Norway, was included to gain the experience of a non-member

state in Europe. The researchers arrived at the conclusion that, although not all countries in the study recognised the concept of citizenship information, they all, to varying degrees, have policies and systems to deliver that kind of information to their citizens (Steele, 1999).

The study also found that the debate about citizenship information has been brought to the fore, in some of the countries studied, as part of a wider debate about standards of public services and the accountability and transparency of policy-making procedures (Steele, 1999). The study includes some recommendations regarding information policy issues relating to the rights of access to public sector information and the promotion of citizenship information provision. It also recommends that the exploitation of the Information and Communication Technologies in delivering citizenship information and in enhancing democracy and citizen participation should be explored much further (Steele, 1999).

More recently, Moore (2002) developed a model of six dimensions to analyse and identify the scope and the nature of social information needs in the context of the information needs of the blind and visually impaired. According to Moore, social information can be seen as having six different dimensions, each of which can provide a basis for analysis. They are:

- Function - why do people need information?
- Form – What kind of information do people need?
- Clusters – What do people need information about?
- Agents – Who initiates the information activity?
- Users – How do needs differ between different groups of people?
- Mechanisms – Which mechanisms can be used to meet information needs?

The author believes that such models can be useful tools for analysing the use of citizenship information and can identify any gaps in its provision.

The provision of Government information and information seeking by the public (Sprehe, 1999) and the use of the Web to provide Government services (Dawes *et al.*, 1999) have also been the objectives of some recent studies.

Summing up, a more in-depth literature review would certainly identify other cases that will also demonstrate existing tensions to be resolved between the different stakeholders in the area of provision, access and use of information for citizenship. Nevertheless, this brief overview emphasises the importance of continuous attention to the policies that impact on the access and provision of information for citizenship. They are critical success factors in the building of a sustainable democracy.

Several information policies (MacMorrow and Oppenheim, 1997) have a significant impact on the development of an environment that promotes information literacy initiatives for active and effective citizenship, as indicated in Figure 1:

- *eGovernment* (delivery of government information and services through the Internet and other digital means) and access to Government held information (Public sector information access and delivery),

- content creation (initiatives undertaken by governments to ensure that suitable content is made available to the citizens (Muir and Oppenheim, 2001),
- universal access to ICT and to information including accessibilities by people with special needs,
- development of the technological infrastructure that will allow access to ICT, including access by the poorer nations (an issue very high on the international political agenda as indicated by the organization of the forthcoming *World Summit on Information Society*, promoted by the United Nations, in collaboration of the *ITU – International Telecommunication Union*, in 2003 (United Nations, 2002),
- data protection - *i.e.* protecting individuals from unwanted and harmful uses of data about them (Oppenheim 2001: 161),
- information literacy skills development,
- Freedom of Information (FoI) is the legislation concerned primarily with facilitating general access to information created by, or held by Government, while ensuring that individuals are aware of and have some control over data that concerns them at a personal level (Feather, 1998),
- preservation of cultural heritage using the digital technologies.

Thus, they have, a direct impact on the development of information literate people for an active, effective and responsible citizenship.

Muir and Oppenheim (2001) have recently completed their *Report on Developments World-Wide on National Information Policy*, prepared for *Re:source* and the *Library Association* in UK; this provides an update on the state of the art concerning these and other policies worldwide.

This discussion on the Information Environment would not be complete without a mention of Information Quality, or the lack of it! Because of the escalating complexity of this environment, individuals are faced with diverse, abundant information choices in their academic studies, in the workplace and in their personal lives. Information is available through libraries, community resources, special interest organizations, media and the Internet; increasingly, information comes to individuals in unfiltered formats, which raises questions about its provenance, its authenticity, validity and reliability. In addition, information is available through multiple media, which gives new challenges for individuals in accessing, evaluating and understanding. The uncertain quality and expanding quantity of information pose significant challenges for the individual, in personal, family, business professional and community life. There is thus considerable pressure on the individual to expand the cluster of skills and competences required to make best use of the information available.

5.2.3. Public and Civil Society Institutions as Information Intermediaries.

One of the rights of any citizens has to do with access to the information required to function effectively in the community. In contemporary societies, there are those who, in spite of being information literate and able to find the required information, may not have the time to read, or the knowledge to understand, it fully. Moreover, even in those countries with an environment rich in access to many forms of information technologies, there are still those that are information poor and

do not have the skills to interpret and analyse the information that is available (Moore 1998; Goulding 2001).

In most developed countries, there are information services that can package information to make it accessible to those who need it. These include: public libraries, consumer associations, civic associations, and advice services (like the network of Citizens Advice Bureaux in UK) and Government information services/agencies, which can deliver information to people that drop in or that make information available in the form of leaflets, brochures or via the Web. In some countries local, regional and national governments are also implementing networks of kiosks, located in public places and shopping malls, to provide information required by people in their daily life.

Figure 1 represents these entities on the right hand side, under the broad designation of "intermediary role." They are essential for the development of an Information Literate Citizenry. We will address each separately.

Public Libraries

One of the main activities, public libraries and other agencies are proactively engaging in initiatives that aim to provide information and services to individuals and groups that are suffering any form of discrimination, exclusion or that belong to disadvantaged groups in society – the unemployed, the unqualified, those on low income, with poor housing, the sick or disabled, black and ethnic minorities, women, gays and lesbians (Pateman, 1999).

Access to information is a prerequisite for a cohesive society; a community that lacks informal or informal means of communication has little chance. As Alan Howarth, UK Arts Minister said:

The socially excluded are not just suffering from material poverty but are all too typically isolated from the social and civic networks that enable people to live successfully in - and contribute to - modern society. We are determined to ensure that our society does not become divided into information haves and have-nots. Those who are socially disadvantaged, those with disabilities and those who otherwise cannot participate in education and training in the normal way must not be excluded from the information revolution that is upon us... Public libraries must more and more take their place as street corner universities, providing real opportunities for everyone regardless of their place in society. (Howarth cited in Pateman, 1999, Class and public libraries, ¶ 2)

Exclusion is not simply about material poverty, however; some individuals and groups, who are not necessarily poor in monetary terms, may suffer from other forms of discrimination and exclusion. As the shift towards the information society progresses, information impoverished individuals will find it increasingly difficult to compete in that information society. The gaps between the so-called "haves" and the "have-nots" will widen. Some will be faced with information poverty.

The reasons behind social exclusion are many and varied, so trying to tailor information literacy activities on the basis of identifying groups who are conventionally regarded as being at risk of exclusion is probably too simplistic an approach to be effective. In a given community, the reasons for a group being excluded are likely to be complex and interlinked. They may involve a mix of unemployment leading to increased crime, leading to service providers avoiding such high-risk neighbourhoods and the refusal of new families to move in. A conventional solution, such as increasing mobile services to areas where there are high concentration of elderly people, does not work here. Neither does it work for the homeless and travelers.

The public library should be recognised as the local learning centre and the champion of the independent learner; libraries can contribute to the lifelong learning agenda; libraries can work together for the benefit of lifelong learners, whether in formal education or pursuing informal or self-directed learning.

The opportunities for our information age must be open for all not just for the few; it makes no sense to describe our citizens as “haves” or “have-nots,” when it is obvious that they span a broad spectrum of information literacy skills and information needs.

Libraries should form partnerships with other learning organisations; libraries in a community or region should draw up access maps to enable users and learners to reach resources or assistance in other libraries; training of library staff, resource managers and teachers should be coordinated and include ways of developing mutual support in the community.

Public libraries and other agencies are proactively engaging in initiatives that aim to provide information and services by promoting measures such as guidance and advice to jobseekers, including a basic ICT awareness programme.

Illustrative of this concept is the project *COOL – Creating Opportunities for Other in Libraries* - which has investigated the benefits of using electronic and other information sources in public libraries to address social exclusion and also to identify potential barriers. This project was carried out by the *Department of Information and Library Studies* at the University of Wales, Aberystwyth and was commissioned by *British Library RIC/LIC*. The project ran from March 1999 to April 2000 (Everitt and Tomos, 2000).

The project “*Open for All? The Public Library and Social Exclusion*” based at Leeds Metropolitan University, (October 1998 – April 2000), a British Library funded project, has examined the role of information and information providers in assisting public participation and inclusion. It aimed to identify ways in which public libraries might contribute to a socially inclusive information society in UK (Muddiman, 1999).

Governments in several countries have embarked on programmes that aim to network Public Libraries enabling these to provide Internet access to the community and provide lifelong learning services.

Partridge (2001) discusses the services provided by two Public Libraries in Australia – Brisbane City Council and the Readland Shire’s. The development of programmes and resources were designed to foster Network Literacy within the community and to bridge the Digital Divide.

There is a role for Public Libraries in developing the information literate citizen and to promote social inclusion; there is also a new role for the School Library in developing high levels of literacy, reading, learning, problem-solving and information and communication technology skills (UNESCO 1998)

Other public and civil society institutions as information intermediaries

People need a continuum of information for citizenship that ranges from information to advice and on to advocacy (Moore and Steele, 1991; Moore, 1994; Moore, 2002). Each plays a different role in citizenship. Consider, for example, a disabled person trying to claim welfare benefits. They will need information in order to understand the benefits system and to find out about the range of benefits that are available to disabled people. But we know from research (the classic British study

is the one by Craig, 1991) that information alone will not be sufficient to persuade most people to act.

To prompt action, they need advice. They need to talk to someone who can interpret or customise the information to fit the individual's circumstances. In this case, the disabled person might need someone to advise her on which of the range of benefits she was entitled to. Such advice can trigger action, but may not be the end of the story. If, for example, she applied for the benefit but was turned down, she would want someone or some organisation to act on her behalf with the welfare benefits agency, putting forward her case and acting as her advocate.

This is actually what lawyers and financial advisers have always done for people who can afford to pay for their services. But many would argue that effective citizenship in a complex information-based society requires a range of publicly-funded and accessible agencies which can provide advice and advocacy services. The state, or the provider of public services can provide the basic information but other agencies are needed to act on behalf of the citizens.

In particular Citizens Advice Bureau in UK give advice and often act as advocates on behalf of their clients. This is in contrast with Public Libraries referred to above, which seldom do more than collect, hold and provide information that has been produced by others. This raises the question of independence and objectivity in the information provided. If it is neutral information, the citizen accepts, if this is provided by the state or Local/National government's departmental offices. However, if the issue becomes contentious – like the implementation of an incineration process for toxic materials/residues of industry one will want to know what the government's position is and want to compare this against information from as many independent sources as possible.

Promotion of information literacy for intermediaries that advocate citizenship rights

Intermediaries, as advocates, must also be information literate, if they are to be effective in an Information Society.

It goes without saying that all citizens, working as Information Intermediaries, whether in Education, Libraries or Counseling Services, should possess those information literacy skills that enable them to perform their tasks effectively in an information rich environment.

6. CONCLUSIONS

Several projects address Information literacy in an educational context (Higher Education and Schools) (e.g. NFIL; Todd, 1995; Prior, 1999; Stone, 2000; Webber and Johnston, 2000). Some research and practice has concentrated on the issues of information literacy in the workplace (Mutch 1997; Bruce, 1999; Abell and Oxbrow, 2001).

The public library has also received attention as a provider of Internet access.

Several Governments and Government agencies around the world have implemented electronic-information literacy programmes (Fahey, 1999, 2001). However, they generally provide training to complement the more general skills, such as reading, writing and arithmetic and are not specifically addressed to promote and active, effective and responsible citizenry; they therefore fall outside the scope of this paper. An example is the *Multimedia Victoria's Community Skills and Networking Programme - Skills.net* (WLMA). In United Kingdom, for example, Internet education for several

sectors of the community has been stimulated by *People's Network* (Re:source) funding (Webber and Johnston 2001d; Partridge 2001).

In parallel, international organizations, the European Union, and national governments are developing policies to promote access to Internet while, at the same time, expressing their concerns about inequalities of access. They are promoting *eGovernment* and *e-Governance*, access to Public sector held information and content creation and delivery with the intention of encouraging public administration, at all levels, to exploit IT and make public information as accessible as possible.

However, information literacy for an active, effective and responsible citizenship is an area which has not received much attention.

In the context of information for citizenship, people need (Moore, 2002) to have access to, and use information in order to function as citizens (and as consumers of public services). Inequalities in the access and use of information, as well as the lack of information literacy skills, inhibit people to function as citizens. Information and Communication Technologies, have provided the producers of information with new dissemination channels. They have made it easier for the information literate people who have access to ICT and the Internet to gather information from a range of sources. However, they also introduced a new set of information literacy skills. They also created the risk of increasing the gap between those that have information (information rich) and those that have not (information poor). Increased penetration of ICT can actually increase the level of information exclusion, one of the causes of social exclusion.

Generally speaking, there is a great need for further research on factors that have an impact on information literacy. Further research is also required into ways and means of measuring information literacy, recognising that the problem is not one of “haves” and “have-nots” but involves a broad spectrum of information literacy skills acquisition and information needs and that there will always be a need for information literate Information Intermediaries to advise and advocate for an active, effective and responsible citizenry.

7. RECOMMENDATIONS

Develop a Research Agenda to:

- i. Discover ways of identifying the critical factors, which have most impact on information literacy, or the lack of it,
- ii. Find a way to measure information literacy, so that improvements can be monitored.
- iii. Form an international monitoring organisation to locate the critical areas of information illiteracy, so that funds and resources can be properly targeted.
- iv. Campaign for the training of all Information Intermediaries in information literacy skills.
- v. Monitor what is going on in each country to see how much information literacy contributes to a sustainable democracy;
- vi. Promote Education for Citizenship among school children; promote improvement of computer skills and information literacy skills among adults; promote places where Internet access is free or at reduced cost.

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Contact: Instituto Superior de Estatística e Gestão de Informação, Universidade Nova de Lisboa Campus de Campolide, 1070-124 Lisboa, Portugal. E-mail: acorreia@isegi.unl.pt

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