

European Institute for Communication and Culture  
Nijmegen, the Netherlands 9-12 October 2002

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## **Internet use and policy in the European Union and implications for eDemocracy**

### **Abstract:**

The number of Europeans using the Internet has been increasingly rapidly since the mid-1990s but the rate of increase is slowing down and may have reached a plateau in some countries. Surveys of Internet use across the EU consistently reveal a pattern of unequal rates of use among socio-economic categories of users, primarily by level of education, gender and work status. Research on the digital divide has questioned assumptions about the diffusion of ICTs and highlighted that social relations and individual preferences shape how the Internet is used. However the core EU policy on the Internet does not consider these factors but rather focuses on technical and infrastructure concerns. The model of eDemocracy and eGovernment being developed by governments across the EU does not address the fact that in most countries most adults are not using the Internet and significant inequalities persist in Internet access and use. At the same time, those most in need of government information and services are the same groups with the lowest rates of Internet use. This paper discusses the implications of this situation for eDemocracy and suggests a research agenda focused on questions related to users in eDemocracy processes.

### **Levels of Internet use in the European Union**

The number of Europeans using the Internet has been increasing rapidly since the mid-1990s but the rate of increase is now slowing down. According to the European Commission (2002a) levels may have reached a plateau in some countries. From June to November 2001 levels of Internet use increased in Austria, Denmark, Finland, France, Germany, Italy, the Netherlands, Portugal and the UK. They decreased in Greece, Ireland, Luxembourg and Sweden and remained static in Belgium and Spain [1].

**Chart 1: Percentage of population using the Internet in the EU**

	<b>Oct 2000</b>	<b>June 2001</b>	<b>Nov 2001</b>
<b>Use the Internet</b>	42	46	48
<b>Use it everyday or several times a week</b>	-	29	32
<b>Have used it to contact a public administration (Web, email, forms)</b>	-	20	22

Source: European Commission (2002a)

Base: Adults (15+) in the European Union

Chart 1 illustrates that just under half of adults in the EU were using the Internet by November 2001, at home, at work or in other circumstances. Just under one third were using it everyday or several times a week. Also by that date, about one fifth had used it to contact a public administration.

Using the Internet for contacting a public administration includes several activities related to eDemocracy. As illustrated in Chart 2, levels of Internet use rose from June to November 2001 for finding information from a public administration, filling out forms, and sending an email. They were also rising for taking part in forums and discussion groups of all kinds. However these remained fairly marginal activities - only one in 10 adults in the EU had sent an email to a public administration or had taken part in Internet forums or discussion groups by November 2001.

**Chart 2: Percentage of population using the Internet for selected uses**

	<b>June 2001</b>	<b>Nov 2001</b>
<b>Find information from a public administration (Web site)</b>	14	17
<b>Fill out forms for a public administration</b>	8	11
<b>Send an email to a public administration</b>	8	10
<b>Take part in forums / discussion groups</b>	8	10

Source: European Commission (2002a)

Base: Adults (15+) in the European Union

### *Differences in Internet use among Member States*

Differences in levels of Internet use are significant across the EU, as illustrated in Chart 3.

Adults in Denmark used the Internet the most and adults in Greece the least. Adults in Austria, Finland, Germany, Ireland, the Netherlands, Sweden and the United Kingdom used it more than the EU average, while those in Belgium, France, Italy, Luxembourg, Portugal, and Spain used it less than the average. Differences also exist among Member States for frequency of Internet use and for using it to contact a public administration. For example in Denmark just under half of adults were using the Internet everyday or several times a week and had used it to contact a public administration. In France, only one-quarter of adults followed a similar pattern.

**Chart 3: Percentage of population using the Internet in selected EU states**

	<b>Denmark</b>	<b>UK</b>	<b>France</b>	<b>Greece</b>
<b>Use the Internet</b>	70	57	45	17
<b>Use it everyday or several times a week</b>	48	39	25	11
<b>Have used it to contact a public administration (Web, email, forms)</b>	44	21	25	7

Source: European Commission (2002a)

Base: Adults (15+) in the European Union in November 2001

Aside from differences among Member States, the Eurobarometer data indicates that Internet use varied considerably according to the socio-economic status of the users. The three significant factors discussed here are educational level, occupational category and gender. The survey also highlighted age and geographical location of residence as factors.

#### *Differences in Internet use by educational background*

As illustrated in Chart 4, about 11 percent of Europeans with 15 or fewer years of formal education used the Internet everyday or several times a week and those with more formal education used it much more frequently. About 44 percent of Europeans with high levels of formal education had used the Internet to contact a public administration - use a Web site, fill out a form online or email a public official - compared to only five percent of those with much less education.

**Chart 4: Percentage of population using the Internet by years of formal education**

	<b>15 or fewer</b>	<b>16 - 20</b>	<b>21 or more</b>
<b>Use the Internet</b>	18	54	77
<b>Use it everyday or several times a week</b>	11	33	58
<b>Have used it to contact a public administration (Web, email, forms)</b>	5	22	44

Source: European Commission (2002a)

Base: Adults (15+) in the European Union in November 2001

#### *Differences in Internet use by profession*

Similar disparities were found by occupational categories (Chart 5). Manual workers used the Internet at less than half the rate of the self-employed and managers. For contacting a public administration, self-employed and managers used the Internet at more than three times the

rate of manual workers. Of course the unemployed, the retired, and others not active in the paid labour force had even lower levels of use.

**Chart 5: Percentage of population using the Internet by socio-professional category**

	<b>Self-employed/ manager</b>	<b>Office worker</b>	<b>Manual worker</b>
<b>Use the Internet</b>	74	66	45
<b>Use it everyday or several times a week</b>	57	46	26
<b>Have used it to contact a public administration (Web, email, forms)</b>	41	33	16

Source: European Commission (2002a)

Base: Adults (15+) in the European Union in November 2001

### *Differences in Internet use by gender*

Gender is another significant factor for levels of Internet use in the EU, unlike in the US where the Internet is used by equal numbers of women and men. The lower rate of Internet use by European women is probably related to their lower levels of participation in the paid labour force, compared to American women.

Chart 6 illustrates that most women in the EU were not using the Internet but most men were. Less than one-quarter of women but more than one-third of men used it everyday or several times a week. Similarly, in Europe less than one woman in five had used the Internet to contact a public administration, compared to more than one man in four.

**Chart 6: Percentage of population using the Internet by gender**

	<b>Women</b>	<b>Men</b>
<b>Use the Internet</b>	40	56
<b>Use it everyday or several times a week</b>	24	40
<b>Have used it to contact a public administration (Web, email, forms)</b>	16	27

Source: European Commission (2002a)

Base: Adults (15+) in the European Union in November 2001

### **Research on "digital inclusion" and the "digital divide"**

The term "digital divide" is used to describe the gap in computer and Internet use between

individuals, households and geographical areas by different socio-economic factors and between countries and regions at different stages of economic development. More recently, researchers are using the term "digital inclusion" to explore why computer and Internet access are widely available in many areas where gaps persist in rates of use by different socio-economic groups.

Researchers focusing on geographical differences between areas and countries often look at infrastructural differences, such as the availability of telecommunications access lines, the number of Internet hosts and secure servers, and ICT penetration and access costs. Discussion about the digital divide among economists tends to focus on how to lower the costs of Internet access. In contrast, sociologists are more focused on how social relations shape Internet use.

The more hopeful analysts believe that patterns of Internet use will equalise over time. In February 2002, the US Administration - which alone among governments has been providing regular and reliable statistics of Internet use by socio-economic and geographical profiles of users - released its latest analysis of Internet use in America (USDoC, 2002). This report suggested that the digital divide in the US is no longer a major policy concern. The data was analysed by focusing on the gains in Internet access by all socio-economic groups rather than the gaps between groups. However an analysis by the Benton Foundation found that the gaps in technology access among US households of different educational, income, racial and geographic backgrounds are widening, not shrinking (Dickard, 2002).

The most recent OECD survey of ICTs and the information economy concludes that: "The digital divide may be said to be both growing and shrinking. When examined in terms of access gap (difference in absolute percentage points), the gap appears to be widening. When examined in terms of growth rate, the digital divide appears to be closing" (OECD, 2002:206).

Everett Rogers' diffusion of innovation theory, first published in 1962, has been widely applied to the Internet. Using this model, the first group of Internet users are primarily young, well-educated white males and then, over time, a critical mass of users is reached among the general population. This model was criticised two decades ago by McAnany (1984) and also more recently by many other researchers highlighting the results of numerous empirical studies exploring the Internet adoption process and its consequences among different social groups.

Some time ago, Graham Murdock linked unequal levels of telephone use by socio-economic status to broad political and social consequences (1986) and later, with Peter Golding (1989), theorised about the impacts of "information poverty" and political inequality on citizenship in an age in which the provision of information is increasingly entrusted to the market. In his latest contribution (2002), Murdock argues that "access to the Internet has become a basic cultural right of 21st century citizenship. To be permanently disconnected is to be excluded from full participation in contemporary social life." He believes that the gap between those with and without home access to the Internet remains "stubbornly resilient" in the UK.

In contrast, Valerie Frissen (in press) believes that "the fact that citizens lack access to ICT does not signify in itself that they are also poorly informed or that their opportunities to take

part in society are limited." There are huge differences among different social groups in how they use ICTs. The costs of ICTs are prohibitive when the added value is seen as limited; low income households may spend considerable amounts on ICTs such as a games computer or satellite dish rather than a multimedia PC. Both Frissen and Murdoch (2002) also point out that resistance to using ICTs is often not against innovation but rather the language surrounding it in which it gains social significance. Frissen argues that discussion of the digital divide should shift away from issues such as equality and universal access and toward issues such as diversity and other cultural-political concepts. This would mean a focus on content and user practices.

Keri Facer (2002) argues that to understand the complex ways in which the technologies are adopted by individuals in society, researchers need to engage both with macro-level questions of social structures and micro-level questions of how individuals interact with and learn to use new technologies. Her empirical research into young people's computer use - at school, at home, and at friends' homes - found among other things a gendered pattern of use, with boys having a higher use of games and girls a higher use of email, mobile phones and texting. ICT use was an extension of pre-existing networks. Facer proposes that three different factors - access, relevance and resource networks - are the key factors shaping the extent to which individuals are likely to be active users of computers.

### **Internet policy in the European Union**

Policy-makers at EU level and in all Member States would like to see increased levels of Internet use, particularly for eGovernment and eCommerce activities. A crucial question for policy-makers should be the extent to which not using the Internet is linked to an individual's concern with costs or lack of suitable ICT applications, rather than being rooted in the wider issues of social relations and the specific ICT needs and preferences of different social groups. However at EU level, there is no indication that those developing information society policies have considered these social issues.

The core information society policy in the European Union is eEurope, an action plan to increase participation in the global information society (European Commission, 2002b). eEurope was first introduced in 1999 and the current policy - eEurope 2005 - was ratified in June 2002. eEurope policy is not binding on Member States but it provides guidelines and targets for national information society policies. Member States agree to Action Plans for eEurope and some Member States have aligned their core national information society policy with eEurope.

The central aim of eEurope 2005 is to develop in Europe by 2005: modern public services (e-government, e-learning services, e-health services), a dynamic e-business environment and, as an enabler for these, widespread availability of broadband access at competitive prices and a secure information infrastructure.

The eEurope policy is driven by the premise that the way to increase Internet use in Europe is to lower the cost of using it. Therefore its focus is on initiatives to enhance competition among telecommunications and Internet service providers. The policy does briefly acknowledge several of the many socio-economic factors that may explain why so many Europeans are not using the Internet - it suggests that Member States should address access

for people with special needs, such as persons with disabilities or the elderly. Women are mentioned once, along with the unemployed, in the context of providing IT training programmes to ensure employability and overall quality of life.

However eEurope does not address any of the socio-economic issues that researchers have linked with patterns of Internet use. There are no guidelines or targets for increasing Internet use among the groups with lower levels of use - women, adults with lower levels of formal education, or those working in jobs not requiring computers.

eDemocracy is not mentioned in eEurope. Neither is "democracy," or indeed any term that might shed light on the social model of the information society the policy is aimed at building. Similar to the EU information society policies that predate eEurope, its vision of Europe is almost entirely economic and technological, its concern with citizens largely confined to ensuring they have the skills to work in the jobs promised by the new economy.

***Proposed actions for e-government (from eEurope 2005):***

Hence the policy's treatment of eGovernment. Under the previous eEurope Action Plan, EU Member States agreed to provide all basic government services online by the end of 2002. Europe 2005 reviews developments to date and sets out six proposed actions for eGovernment until 2005. All six are listed below - in full, to reinforce the point that the policy is focused on technical and economic issues rather than social, cultural or political issues.

\*Broadband connection: Member States should aim to have broadband connections for all public administrations for 2005. Since broadband services can be offered on different technological platforms, national and regional authorities should not discriminate between technologies when purchasing connections (using open bidding procedures, for example).

\*Interoperability: By end 2003, the European Commission will issue an agreed interoperability framework to support the delivery of pan-European e-government services to citizens and enterprises. It will address information content and recommend technical policies and specifications for joining up public administration information systems across the EU. It will be based on open standards and encourage the use of open source software.

\*Interactive public services: By end 2004, Member States should have ensured that basic public services are interactive, where relevant, accessible for all, and exploit both the potential of broadband networks and of multi-platform access. This will require back-office reorganisation (re-engineering internal administrative processes that relate e.g. to data collection and data management, electronic information exchange, interagency co-ordination) which will be addressed in the good practice exercise. It also implies addressing access for people with special needs, such as persons with disabilities or the elderly. Commission and Member States will agree on a list of public services for which interactivity and interoperability are desirable.

\*Public procurement: By end 2005, Member States should carry out a significant part of public procurement electronically. The experience of the private sector shows that reducing costs is most efficiently achieved through the use of the Internet in supply chain management,

including e-procurement. Council and Parliament [European institutions] should adopt as quickly as possible the legislative package on procurement.

\*Public Internet Access Points (PIAPs): All citizens should have easy access to PIAPs, preferably with broadband connections, in their communities/municipalities. In establishing PIAPs, Member States should use structural funds and work in collaboration with the private and/or voluntary sector, where necessary.

\*Culture and tourism: The Commission, in co-operation with Member States, the private sector and regional authorities, will define e-services to promote Europe and to offer user-friendly public information. These e-services should be deployed by 2005 and build on interoperable interfaces, use broadband communication, and be accessible from all types of digital terminals.

The six strategies for action above constitute the core policy for eGovernment at EU level to which Member States are encouraged to adhere.

The purpose of the eGovernment strategies in eEurope policy is to outline the broad technological specifications for computer systems for online government services. The policy does not address the needs of European citizens related to governance and democratic processes, especially the needs of those citizens without the knowledge, skills or confidence to use the Internet and to make an informed decision about participating in eGovernment processes. Rather, the policy in general addresses the needs of the large IT development companies and consultancies in Europe - who in the aftermath of the dotcom crash have realised that their biggest and most reliable customers are likely to be public administrations. Spurred on by eEurope policy, by lobbyists for the IT industry, by desires to cut the costs of public services, and by other national driving forces, governments across Europe are currently spending vast sums of public funds to develop online government.

It is fair to say that the interest by governments across Europe in eGovernment has little or nothing to do with notions of improved democratic processes and everything to do with potentially vast reductions in the costs of public administration. eGovernment policies that consider the social aspects of electronic communications are potentially costly because they imply direct contact between people, which is precisely what the eGovernment policies are trying to reduce or eliminate.

### **Implications for eDemocracy**

The thrust of policy and practice by governments in Europe is to develop eGovernment and eDemocracy "solutions" without a clear notion of what the "problems" are. Until governments address head-on the social issues that shape Internet access and use, the take-up of eGovernment and eDemocracy processes will be very limited.

eDemocracy and eGovernment "solutions" need to start with the fact that in most European countries, most adults are not using the Internet and that: "The social and demographic profile [of Internet users in the EU] is on a par with that of households having access to the Internet: mostly young men, educated, living in a metropolitan area and belonging to the most fortunate social classes (executives, liberal professions and self-employed)" (European



Commission, 2002a).

There is no reason to believe that the number of Internet users in Europe will continue to rise or that the profile of Internet users is going to shift significantly in the near future. Internet users are over-represented by the most "fortunate social classes," giving these groups increased access to government information, services and to online policy processes and debates. This is perhaps also the situation with off-line access to information and services and policy processes but it does raise the central question of just who will be using eGovernment and eDemocracy processes in Europe during the next five to 10 years.

The Europeans most in need of government information and services are also the ones with the lowest levels of Internet use. For example in the UK, the majority of those who use government services are from the DE class, the categories denoting workers with few or no skills, the unemployed, and some of those not active in the labour force. A recent survey of UK Internet users (Gibson et. al, 2002) found that 26 percent of this category uses the Internet (compared with 72 percent of the AB upper middle and middle classes). Another recent survey in Glasgow (total sample 2000) found that of Glasgow residents receiving income-related benefit, only 26 percent were using a PC and only 19 percent were using the Internet. Only a quarter of Glasgow City Council tenants owned a PC and less than one in five had Internet access at home, compared with nearly half of Glasgow households overall having Internet access at home. (Scottish Enterprise Glasgow, 2002).

### **Conclusions: A Research Agenda**

Over the next five to ten years, most adults in Europe will not likely be engaging with eDemocracy and eGovernment processes on the Internet. Those who do participate will be overly-represented by the socio-economic groups already having more social and political influence than the norm. The socio-economic groups most in need of government information and services will be the same groups with the lowest levels of Internet use.

This situation suggests an agenda for eDemocracy and eGovernment research with a much wider focus than any specific Internet process. The focus suggested here is squarely on the users. This includes: user profiles; social resources and networks; ICT skills and training; levels of ICT awareness, access and use; frequency and type of use; relevance of different ICTs; and community and political participation using the Internet. Some suggested areas for exploration are below:

#### Socio-economic profiles of ICT users and non-users

\* Examining the profile of ICT users and non-users. Areas to be considered include: gender, age, level of education, participation in labour force, type of employment, literacy level, disability, and household income - and other socio-economic factors shaping ICT use.

#### Social resources and networks involving ICTs

\* Examining the relationship between social resources and networks and use of ICTs by different socio-economic groups and in different communities. This will include ICT use by and resources among friends and family members; work colleagues and contacts; schools and

school-age children; and community activities, community and voluntary organisations and other community-based resources.

#### ICT skills and training

\* Examining the level of ICT skills and training experience by different socio-economic groups and communities, how these skills were acquired, and the usefulness of these skills for eDemocracy and eGovernment processes. Options to be explored could include: the range of skills levels, from no skills to computer professional; how these skills were acquired; the availability of training; and barriers and restraints to acquiring new or further ICT skills.

#### Levels of ICT awareness, access and use

\* Examining the levels of awareness, access and use of a range of ICTs by different socio-economic groups and in different communities. The ICTs to be considered could include: fixed computers, portable computers, email, the Web, email discussion lists or forums, chat rooms, digital camera, DVD, mobile phone, texting, broadband and games consoles.

#### Frequency and type of Internet use

\* Examining the frequency and type of Internet access and use by different socio-economic groups and communities. Options to be explored could include: place of access, including home, work, library, community centre and so on; type of access, from ordinary telephone line to broadband; frequency of Internet use, from never to everyday or nearly everyday; reasons for not using the Internet, from lack of interest to lack of time or resources and a range of other reasons; and factors that may encourage Internet use, from free lessons to cheaper telephone charges and a range of other reasons.

#### Relevance of ICTs and digital information

\* Determining which ICTs, processes, online content, and online services are the most relevant and useful for different socio-economic groups and communities. Options for the most relevant uses for computers and the Internet could include: sending or receiving emails; study or learning; job searches; typing letters; writing stories or reports; producing newsletters and posters; finding national or international news; finding local or community news and information; taking part in forums or discussion groups; finding information from government or local authorities; applying for or renewing a passport or driving licence; checking income tax entitlements, checking social welfare entitlements and so on.

#### Community and political participation using the Internet

\* Examining the extent to which the Internet is used for community organising, activism and political participation by different socio-economic groups and communities. Options to be explored could include using the Internet to: exchange email with a community or local group, organise community or local activities, organise a campaign around important community issues, discuss politics with family or friends, find political information, contact a politician or elected official, vote or register an opinion on political issues, sign an online petition, find out more about an activist campaign.

A focus on the research areas suggested above should result in a broad understanding of how and why different socio-economic groups and communities engage or not with the Internet and specific eDemocracy and eGovernment processes. Perhaps in five years or so when governments across Europe are looking for explanations why their eDemocracy and eGovernment systems are not being used by the majority of their citizens, researchers will have some useful analysis to contribute to the debate.

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