

Policy Approaches to Involve Societal At-Risk Groups in European eServices

Lutz KUBITSCHKE¹, Kevin CULLEN²

¹*empirica Gesellschaft für Kommunikations- und Technologieforschung mbH,
Oxford Str. 2, Bonn, 53111, Germany*

Tel: +49 228 98 530 0, Fax: +49 228 98 539 12, Email: Lutz.Kubitschke@empirica.com

²*Work Research Centre, Greenlea Drive, Dublin 6W, Ireland*

Tel: +353 1 4927 042, Fax: +353 1 4927 046, Email: k.cullen@wrc-research.ie

Abstract: The paper draws upon initial results of the eInclusion@EU project. It presents a conceptual framework for the location and prioritisation of issues in including societal at-risk groups in eService provision. The framework is designed to enable the evidence-based formulation of policy recommendations drawn from a comprehensive view on all the factors potentially leading to digital division in the emerging Information Society in Europe.

1. Introduction

The transformation of Europe into the so-called Information Society represents one of the most significant socio-technological trends since the Industrial Revolution: "...existing computer-mediated human activities undergo fundamental changes, and a wide variety of new ones appear, such as access to on-line information, e-communication, digital libraries, e-business, on-line health services, e-learning, on-line communities, on-line public and administrative services, e-democracy, tele-work and tele-presence, on-line entertainment, etc. From a specialist's device, the computer is being transformed into an information appliance for the citizen in the information society" [1]. On-line services have started to pervade all spheres of life including the home, working environment and the market place.

In the political arena, these developments are usually deemed to hold great potentials to improve the quality of life of citizens, the efficiency of social and economic organisation, and to reinforce societal cohesion. However at the same time there is evidence that they can also entail new participation barriers, human isolation and alienation for some population groups [2]. Scientific and policy discourses have emerged which highlight societal risks associated with not guaranteeing appropriate "connection" to commonly used on-line services for all population groups. In this regard there are negative social and economic impacts feared concerning the emergence of a "two-tier" society of "information-haves" and "information-have-nots" in which only part of the population has access to new technologies, is comfortable using it and can fully enjoy the benefits.

Over the last few years, many European countries have pursued policies online directed towards familiarising citizens with the Internet (e.g. setting up Internet access points in libraries and other public locations) [3]. It is a key policy goal at EU to give every citizen the opportunity to participate in and benefit from the Information Society [4]. Responsibility for eInclusion and eAccessibility issues in Europe is spread across a range of policy fields (e.g. telecommunications, social services) and between central EU bodies, Member States and regions according to principles of subsidiarity. The recent expansion of the EU, is generating more opportunities for policy makers to share experiences. The eInclusion@EU initiative is a response to the need for dialogue, coordination & knowledge.

2. Objectives and Methodological Approach

The eInclusion@EU coordination action started in Q1 2004. It aims to provide scientific support to the European Union's Information Society policies in the areas of eInclusion and eAccessibility. Over a duration of 30 months, it will establish a consistent conceptual framework for European policy formulation, identify innovative and successful policy approaches and measures, facilitate informed dialogue between key stakeholders and in this way generate policy proposals that are both well grounded and practicable and will accelerate progress towards the eInclusion and eAccessibility policy goals set in the context of the European Union's so called "Lisbon Strategy" and elsewhere [5].

A conceptual and methodological basis for coordination will be developed. Scientific and policy debate on eInclusion and eAccessibility will be incorporated into a framework enabling common understanding of the coordination process and help define the scope of pan-European dialogue between key actors. The subsequent coordination phase focuses on:

- collating evidence on selected eInclusion and eAccessibility issues, both at Member State level through a network of national correspondents and at supra-national level through literature analysis,
- feeding this information into an online knowledge base,
- organising an informed dialogue with and between relevant stakeholders in eInclusion and eAccessibility by means of topic-related workshops,
- consolidating the results of this process with a series of topic reports including policy recommendations.

3. Achievements

Although the project is still in its early phase, some substantial results have been achieved with respect to the development of a conceptual framework for the location and prioritisation of issues in providing societal at-risk groups with eServices. In particular, key factors potentially leading to a digital division in the emerging Information Society have been identified. In the following subsections this is described in more detail.

3.1 eAccessibility and eInclusion - Two Approaches to Counteract the Digital Divide

The term "eInclusion" (and its flip-side "eExclusion") has come to be widely used in policy and research circles although not always with the same meaning or scope of coverage. In fact, three distinct yet interlinked perspectives can be discerned:

- Digital disadvantage: This perspective focuses on those communities, groups and individuals that are already disadvantaged and socially excluded and are therefore at risk of exclusion in the Information Society. Within this perspective the research focus is on identifying and quantifying what groups are disadvantaged in terms of access to and utilisation of the basic tools of the Information Society (PCs, the Internet etc), what factors cause such disadvantage and how can such access barriers be removed.
- Digital opportunities: This perspective focuses on the positive potential offered by the Information Society to reduce existing forms of social and economic exclusion. Here the emphasis is on the variety of forms of eParticipation open up new opportunities for inclusion and participation. For example, on-line access to services and eWorking can open up new opportunities for people who would otherwise be excluded because of factors such as limited mobility, time and/or locational constraints.
- Digital empowerment: This focuses on how the Internet and other Information Society tools can empower individuals and communities by facilitating individual expression (e.g. through ePresence and eContent generation) and collective endeavour through civic activity and democratic expression and enfranchisement. It is also linked to the

desire to support the development of social capital, both in terms of new opportunities presented by on-line communities and in terms of avoiding further erosion of social capital through the virtualisation and privatisation of activity on the Internet.

The focus on eAccessibility is part of the tradition of disability research and policy. In this context, the notion of "accessibility" has been linked to the impact of environmental challenges on the disabled. These include challenges presented by the physical environment for people with sensory and mobility disabilities and by the information/knowledge environment for people with intellectual disabilities. A central aspect of the eAccessibility approach is to ensure that the physical and information/knowledge dimensions of the Information Society are such that they do not make it more difficult for people with disabilities to use them, or even prevent them from using them at all.

There is also a more positive side to eAccessibility, focusing on the positive potential of the new tools and services of the Information Society to overcome previous barriers to accessibility that were faced by disabled people. These opportunities are presented by inherent properties of the tools and services of the Information Society, such as their virtuality (enabling them to be accessed from anywhere) and the flexibility of modes of delivery and access (multimedia and multi-platform capabilities mean, at least in principle, that barriers experienced by people with sensory disabilities can be reduced or eliminated).

These two aspects of eAccessibility are well-recognised in scientific research and in policy. They are also closely linked with the "Design-for-All" (DfA) perspective and approach, where the emphasis is on designing Information Society tools and services so that they meet the requirements and characteristics of the widest possible range of people and circumstances. An important aspect of the DFA approach is the requirement for seamless connectivity of assistive technology in supporting accessibility in the Information Society.

3.2 Inclusive eService Provision - Towards a Holistic Policy Perspective

Up to now empirical research on the digital divide has focused on counting "how many people have on-line access" and monitoring the identified gaps between different segments of society as regards gender, generations, ethnicity, income, etc. However, there is some evidence that the remaining "non-liners" lack more than merely access in terms of technology [6]. They appear to lack the social capital required to effectively utilise the online world for their purposes. This appears to apply even to those "non-liners" who in principle regard the Internet as useful. This suggests that efforts to achieve the broadest possible eInclusion can only be successful if target groups can be integrated in a broader societal sense, by raising their social capital in terms of basic cultural and social skills and competences (e.g. basic learning capabilities). Access-related short term measures – for instance offering public internet access in libraries – can therefore only be regarded as a first step and need to be augmented with more comprehensive long term approaches taking a variety of issues into account. These are graphically represented by Figure 1 below.

In this schema, eAccessibility is represented as comprising a subset of the wider Design for All concept and also as being linked to concepts such as usability, design for ageing, human factors and ergonomics. The Design for All concept and approach is an all encompassing one that recognises the diversity of people in their functional abilities, requirements and preferences and, especially, the continuum of functioning along which we are all located and along which our position varies depending on whether we have particular disabilities, age-related changes, injuries or illness, as well as on whether we are tired, are taking particular medications, are operating in suboptimal (e.g. noisy or outdoor) environments or in constrained circumstances (e.g. driving) etc.

Design for All and eAccessibility address one part of the wider eInclusion domain. Together, they comprise a fundamental pre-requisite for eInclusion for many people, in

particular those with long-standing disability or other functional or activity limiting restrictions. If ICT products and online services are not designed to take these factors into account, then people with disabilities will be excluded from the very beginning. Further to these aspects other key dimensions of the eInclusion domain are crucial in achieving a more cohesive on-line world, which are described in more detail below.

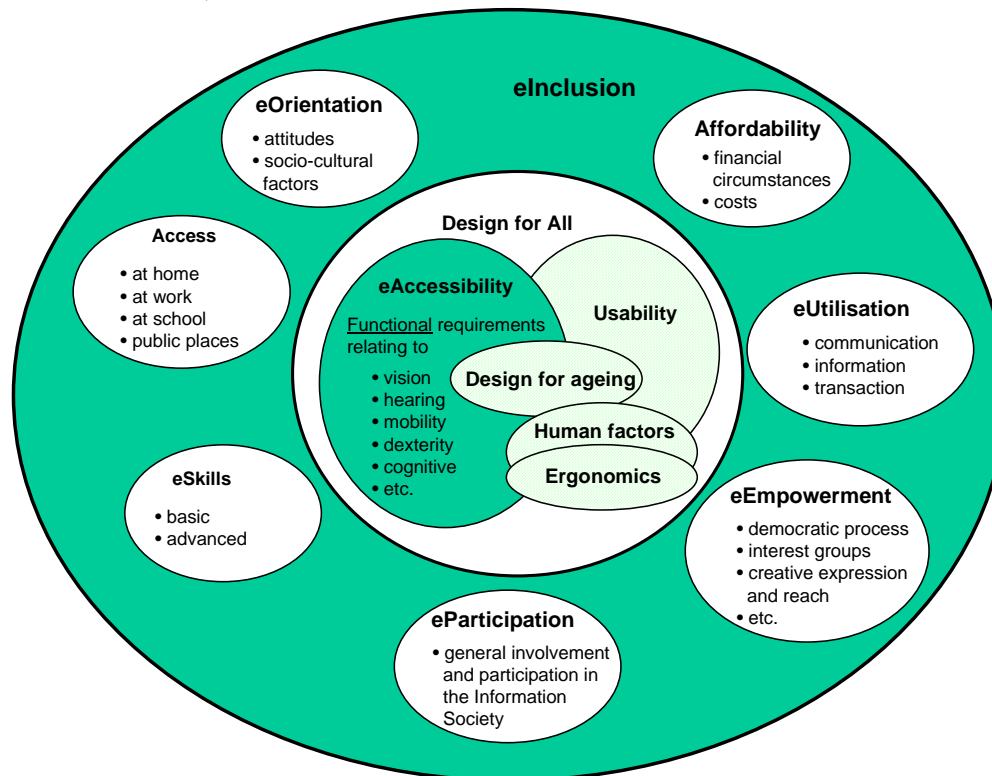


Figure 1: Relationship between eAccessibility and eInclusion

eOrientation is a concept that the eInclusion@EU project has developed to encompass the attitudinal and other socio-cultural factors that have an impact as to whether people are interested in or attuned to the ICT products and services, and ICT-based ways of doing things. A minority of people may deliberately and actively opt-out entirely and some may have strong preferences for doing things in traditional ways where possible. For instance, 29% of the EU's 50+ population are not at all interested in getting involved in the on-line world, and this does not only concern the older age cohorts [7]. In such cases it is debatable whether concerns about inclusion or exclusion are legitimate. In other cases, however, the concept of being excluded may have more relevance. For example, where a lack of interest or ICT orientation derives from a lack of awareness and/or of practical exposure (e.g. amongst older people or those who have not had exposure to ICTs in their working lives).

Access to ICTs is clearly a pre-requisite for inclusion in the Information Society. While in many countries, to have Internet access and a PC at home is normal, there are many homes without. In some countries, those without are a significant part of the population. There is also remarkable variation across households in relation to access to higher bandwidth and broadband connections. Finally, the extent of availability and the nature of public access facilities (so-called PIAPs) varies widely across and within countries.

Affordability is an important factor that can affect home access in particular. Relevant aspects include the costs of terminal equipment, of telecommunications and Internet connections and of usage. For those who may require additional equipment to overcome accessibility barriers there may be substantial additional costs as well. Both the costs of equipment and services and the ability of people to pay need to be considered.

Online access is of little value in itself without the necessary eSkills to use ICTs and online services. Lack of basic computer skills is a fundamental barrier to eInclusion. Disparities in more advanced skills (e.g. searching effectively online, configuring Internet connections) can also affect inclusion. We have coined the term eUtilisation to refer to exploiting ICTs in useful ways. Three generic uses can be identified – for communication (e.g. e-mails for social purposes), for information (e.g. searching for health-related information) and for transactions (e.g. applying for a social benefit or purchasing a ticket). The practical and social benefits are especially important for people whose circumstances impose physical or temporal constraints as to when and where they can do things.

Apart from the practical benefits of being able to do everyday things in a more efficient and time/place independent manner, there are other dimensions to ICTs and the Internet that are also relevant in relation to inclusion. We refer to this as the eEmpowerment dimension. It includes quite a diversity of aspects such as facilitation of the democratic process, of interest group formation and activity, and of creative expression and reach.

Finally, we have identified a more general dimension “eParticipation” which reflects the more general (sense of) involvement and participation in the Information Society. It refers to the extent to which people are familiar with and partake in day-to-day aspects of the Information Society such as e-mailing, texting, looking things up on the web.

These dimensions of eInclusion have relevance for groups where eAccessibility considerations are central (in particular people with disabilities and many older people).

4. Conclusions and Outlook

From the analysis presented above a twofold challenge emerges with respect to including societal at-risk groups in online service provision. This is illustrated by Figure 2 below. Online media can combat traditional forms of social exclusion. There is a need to develop and/or facilitate on-line services capable of supporting “social integration” through “digital integration” (on-line opportunity). For instance, the “eLearning for eInclusion” project has developed solutions targeting societal at-risk groups by combining the acquisition of ICT skills with other non-digital knowledge equally important to social inclusion [8].

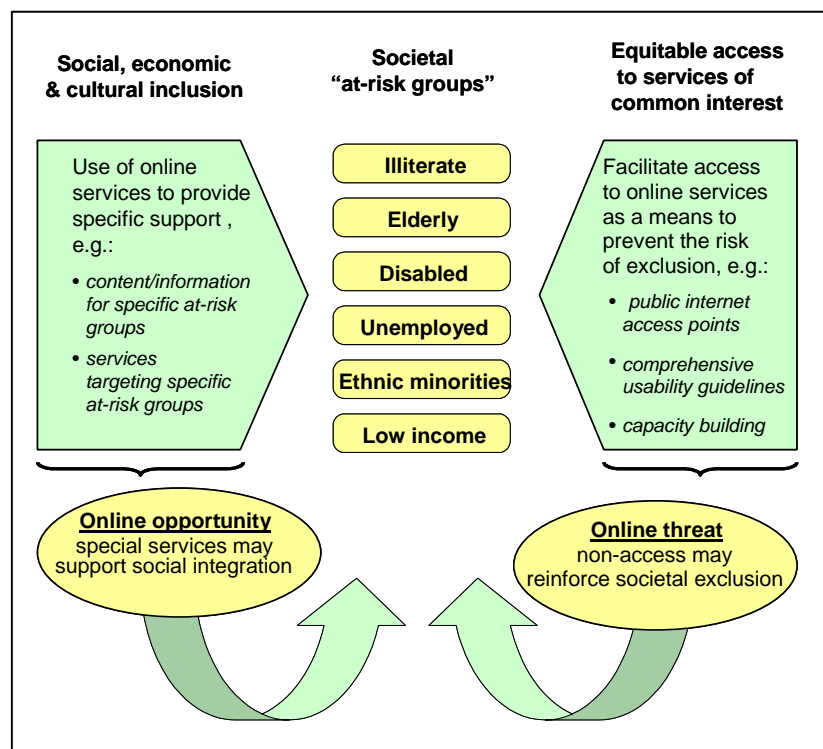


Figure 2: Inclusive Services - a Twofold Policy Perspective

On the other hand, certain population groups need to be prevented from "falling through the net" in the sense that they are unable to utilise on-line services of common interest due to unconsidered user requirements (on-line threat). This refers not only user requirements deriving from disabilities or the biological ageing process, but also from personal capabilities and circumstances in a broader sense. Even if at-risk groups are able to access services in a technical sense, lacking eOrientation and eSkills - as described above - may hinder them in using on-line services to fulfil their needs and aspirations (eUtilisation).

However, it is important to note that these complexities are not insurmountable barriers to action in this field. Based on the material analysed so far, many things can be done to achieve both immediate and more long-term improvements. Various fields for potential actions have been identified including for instance legislation, regulation, standardisation, technical assistance, training, awareness rising and market encouragement.

For the purpose of elaborating evidence-based proposals on such actions it is useful to rely upon a comprehensive understanding of inclusive on-line service provision, as it has for instance been proposed in the context of the Universal Access debate in the field of Human Computer Interaction (HCI). According to this concept universal access to services can be understood as "... the right of all citizens to obtain equitable access to, and maintain effective interaction with, a community-wide pool of information resources and artefacts" [9]. Such a conceptual perspective fosters a cohesive society that respects the citizens irrespective of their social status, gender, age or ability in the sense that all citizens are to be enabled to access the resources potentially provided by the "on-line world". Hence, it has a broad connotation involving a variety of issues including, for example, the availability and affordability of telecommunications infrastructures, the appropriateness and fit-for-purpose of the provided services or the content and quality of the provided information.

For our purposes, these factors can be conceptualised along the line of a supply/demand-oriented model as summarised in Figure 3 below. This model distinguishes between demand-related, supply-related and mediation-related issues, which need to be addressed by eInclusion policies if a truly inclusive Information Society is to be achieved.

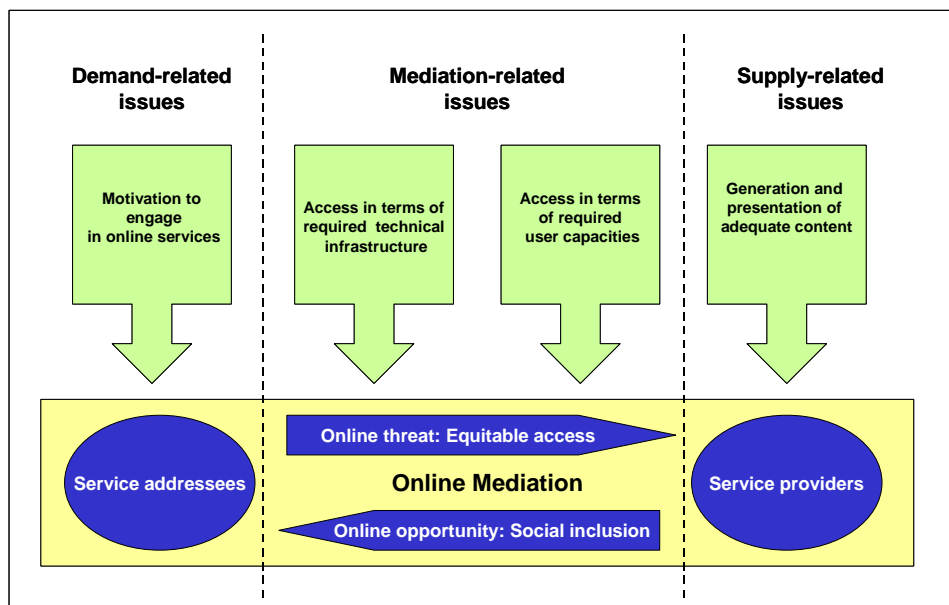


Figure 3: Generic Model for Identifying Issues for Policy Intervention

On the demand side, policy is challenged to motivate societal at-risk groups to engage with online services. Viherä has introduced a holistic concept of communication capabilities required for engaging in online activities that comprises not only access and training to use ICTs, but also the motivation for using them for dedicated purposes [10]. On the supply side, there is a need to support the generation and presentation of appropriate

content. In general, services and content that people actually want must be offered and designed and delivered so they meet the needs of diverse users. Otherwise, there is the danger that many groups will miss out on the new opportunities, that existing divides may be reinforced and that new (digital) divides may emerge.

With respect to online mediation between service providers and users, two components must be considered by eInclusion policies. Firstly, access to the required ICT infrastructures is a pre-condition for being able to engage in online activities. This refers to both terminal equipment and the on-line connection required for accessing eServices. Particularly with respect to low-income groups, affordable access is a key challenge for inclusive eService provision, as costs for domestic Internet access remain prohibitive to many of them. Secondly, digital literacy does obviously not only refer to basic ICT skills but to a range of competences that are necessary to place information in its context and to utilise it in a meaningful manner [13]. Utilising e-services for ones own purposes requires the ability to both move around in a complex conceptual world and synthesise information collected this way in a context-oriented manner. Policy is thus challenged to ensure that all population groups possess the required capacities to utilise on-line services in a meaningful manner.

In a next step, the full range of options for policy interventions identified within each of these fields will be systematically analysed and described. The results will be used in stakeholder workshops that will provide the basis for formulating recommendations across all relevant policy fields. These recommendations will focus on two core dimensions:

- What does research and scientific evidence tell us about what should be policy priorities in future and how should they be addressed?
- How can both scientific knowledge and the experience, needs and aspirations of actor groups be incorporated into policy making, implementation and evaluation processes on an ongoing basis?

References

- [1] Anne Clark et al: BEEP Domain Rational, IST project no. IST-2000-26224, internal working document, January 2002, p.1.
- [2] Dieter Klumpp, Herbert Kubicek, Alexander Roßnagel (Ed.), next generation information society ? Notwendigkeit einer Neuorientierung, Mössingen-Talheim, 2003.
- [3] Commission Staff Working Document: Benchmarking report following up the “Strategies for jobs in the Information Society”, Brussels 7.2.2001, SEC (2001) 222, (retrieved on 29.04.04 from http://europa.eu.int/comm/employment_social/knowledge_society/bench_en.pdf)
- [4] European Commission: The Lisbon European Council - An Agenda of Economic and Social Renewal for Europe, Contribution of the European Commission Special European Council in Lisbon, 23-24th March 2000, DOC/00/7.
- [5] *ibid.*
- [6] H. Kubicek: Von Technikakzeptanz zur digitalen Integration. Fortschritt in Worten und Taten ?, in Dieter Klumpp, Herbert Kubicek, Alexander Roßnagel (Ed.), next generation information society ? Notwendigkeit einer Neuorientierung, Mössingen-Talheim, 2003, p.p. 96-114.
- [7] Lutz Kubitschke, Petrina Duff, Tobias Hüsing, Veli Stroetmann, Karl A. Stroetmann, et. al.: Older People in the Information Society – A Comparative Analysis of the Current Situation in the European Union and of Future Trends, SeniorWatch report no. 5.1, IST project no. IST-1999-29086, April 2002.
- [8] D. Casacuberta et al.: Digital Inclusion: Best practice from E-Learning, in: P. Cunningham et al.: Building the Knowledge Economy: Issues, Applications, Case Studies, IOS Press, Amsterdam, 2003. p.p. 1519-1525.
- [9] Stephanidis C. (Ed.), Salvendy, G., Akoumianakis, D., Bevan, N., Brewer, J., Emiliani, P.L., Galetsas, A., Haataja, S., Iakovidis, I., Jacko, J., Jenkins, P., Karshmer, A., Korn, P., Marcus, A., Murphy, H., Stary, C., Vanderheiden, G., Weber, G., & Ziegler, J. (1998). Toward an Information Society for All: An International R&D Agenda. *International Journal of Human-Computer Interaction*, 10 (2), p. 107.
- [10] Viherä, M-L, Nurmela, J (2001) “Communication Capability Is an Intrinsic Determinant for Information Age”, in *Futures*, Volume 33, Issue 3-4: p.p. 245-265