ICT, Social Capital and Cultural Diversity

Report on a Joint IPTS-DG INFSO Workshop held in Istanbul (Turkey), 25 April 2007

Authors: Romina Cachia, Stefano Kluzer, Marcelino Cabrera, Clara Centeno and Yves Punie
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European Commission
Joint Research Centre
Institute for Prospective Technological Studies

**Contact information**
Address: Edificio Expo. c/ Inca Garcilaso, s/n. E-41092 Seville (Spain)
E-mail: jrc-ipts-secretariat@ec.europa.eu
Tel.: +34 954488318
Fax: +34 954488300

http://www.jrc.es
http://www.jrc.ec.europa.eu

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Participants:
Mr Alec Guiral Fundacion Viladecans, e-Migra project, Spain
Mr Alexander Schellong Kennedy School of Government, Germany / United States
Ms Claire Scopsi Fondation Maison Sciences de l'Homme, Groupe d'Etude usage des TICs et migrations, France
Mr Claude Beaudoin CASNAV, Nénuphar project, France
Mr Davide Calenda Political Science Dept. University of Florence, Italy
Ms Elena Bonfiglioli Microsoft Europe, Belgium
Ms Elizabeth Collett European Policy Centre, Belgium
Mr Faizal Nabibaks Maghreb.nl and other ethnic sites, Netherlands
Mr György Lengyel Sociology Dept. Corvinus University Budapest, Hungary
Mr Hannes Spreitzer Ministry for Social Affairs and Consumers protection, Austria
Mr Isidro Maya Jariego Social Psychology Dept. University of Seville, Spain
Mr Jan Vos Govworks, Netherlands
Mr Joe Cullen Tavistock Institute, United Kingdom
Mr Monica Rulfs Institute for Cultural StudiesUniversity of Bremen, Germany
Mr Paolo Zanetti CGIL Trade Union Office for Immigrants Milan, Italy
Mr Pierre Diagne Société Générale, France
Ms Riccarda Zezza Nokia, Finland
Mr Syb Groeneveld Nederland Kennisland, Digitale Pioniers project, Netherlands
Ms Valerie Frissen TNO – Strategy, tech. and policy, Netherlands

In addition, the following people from the European Commission participated in the workshop:
Mr Paul Timmers DG INFSO
Mr Loris Di Pietrantonio DG INFSO
Ms Maria del Mar Negreiro DG INFSO
Mr Marcelino Cabrera IPTS
Mr Stefano Kluzer IPTS
Ms Romina Cachia IPTS
EXECUTIVE SUMMARY

This report presents the key results of an expert workshop jointly organized by the Information Society Unit at IPTS\(^1\) and DG Information Society and Media. The objective of the workshop was to analyse the potential of ICT and social capital for the social and economic integration and participation of Immigrants and Ethnic Minorities (IEM). Based on this analysis, policy recommendations are identified to support digital inclusion, which was made a priority in the Riga Ministerial Declaration, and to contribute to the preparation of the 2007 eInclusion Communication. This report presents the results of the workshop and additional desk research.

...IEM is not an homogeneous group

Understanding the complex and diverse population of IEM is crucial for the success of fostering a culturally diverse Europe. IEM cannot be treated as an homogeneous group, as their needs and conditions vary drastically according to their nationality, culture, length of stay, purpose of migration and economic levels, and other factors. It is important that policy makers take into account the differences amongst IEM as they illustrate the varying needs and difficulties in the integration process.

...the role of social capital for inclusion of IEM

Addressing cultural diversity through a social capital approach could have a positive influence on IEM integration. Research illustrates that differences in size, composition, structure and multiplicity of social support networks have an impact on the level of social integration, structure of social network and social support of IEM. Social network analysis enables better understanding of issues pertaining to migration processes, namely the reasons for migration, family regrouping, the formation of communities of compatriots, the acculturation process and social integration. However, relying entirely on a social capital approach could lead to the neglect of people who are isolated and disconnected from social networks and to understating the importance of also building individual capabilities.

...social computing could enable alternative ways and means to integrate IEM

Experts have acknowledged the potential driving force of new technologies to enable alternative ways and means to integrate IEM. Social computing applications may facilitate social relations and thus, could act as leverage for social capital. Their potential for IEM inclusion lies mainly in sustaining emotional attachment, enabling employment opportunities and could act as leverage for social participation and civic engagement.

Nevertheless, the ease of creating self-serving communities does not necessarily lead to social participation. Hence, a distinction should be made between the potential use of these applications and their actual use by IEM. Further more, the use of networking facilities of social computing applications could also have negative effects which need to be addressed, such as privacy related risks.

...exploration of selected domains

During the workshop three areas were explored in-depth, namely: take-up and use of online services, ICT in education and learning, and ICT for employment and access to capital.

\(^1\) Institute for Prospective Technological Studies, one of 7 research institutes that make up the European Commission’s Joint Research Centre.
… policy recommendations

The important role of third parties, intermediaries and NGOs should be recognised, and ways to support them should be devised to interlink them effectively. The promotion of good practice projects at an EU level, as well as opportunities to strengthen links between host and home countries through ICT should be better understood and exploited for the benefit of all the parties involved. Also, experts pointed out the potential role of the EC in ensuring non-conflicting regulation (e.g. on accessibility to online services and multi-language digital content provision) and promoting simpler government services.

The need for Europe to clarify its overall immigration policy approach and to endorse cultural diversity as an opportunity has been set as a priority by the EC. ICT, in particular new technological innovations, such as social computing present a major chance for Europe to strengthen IEM integration, to enhance social inclusion and to exploit technological progress.
1 INTRODUCTION

The widespread diffusion of Information and Communication Technology (ICT) and its integration in our everyday lives has become a major characteristic of the European contemporary society. The potential of ICT in promoting an inclusive European information society (including actions towards better public services and quality of life) is listed as one of the major goals of the i2010 programme. Ensuring inclusion and participation of all individuals and communities in the emerging European information and knowledge society is a major concern. One of the six priorities set by the Riga Ministerial Declaration on digital inclusion – i.e. the promotion of cultural diversity - aims to improve the position of Immigrants and Ethnic Minorities (IEM) in terms of social participation, integration, creativity and entrepreneurship through ICT. Greater employability and productivity of minorities are specific targets, for which tailored ICT training and support actions are deemed important.

Cultural diversity is a key European attribute. Embodied in the promotion of uniqueness and plurality of different groups and societies, it aims to promote harmonious interaction among different people, varied and dynamic cultural identities, respect for different cultures and free expression especially from individuals belonging to minority groups. Turning diversity into opportunity and preventing it from being an obstacle for cooperation, peaceful living and overall socio-economic development is a major challenge for Europe.

The increase of immigration inflows to Europe over the past two decades presents important socio-economic challenges, such as multi-culturalism, racism, unemployment and xenophobia. The relative ease of mobility, due mainly to cheaper and faster transportation and better communications systems, has resulted in a diversified IEM population. Today migration to Europe comes from a wider range of countries, for various purposes and for different periods of time. Also the average education level of migrant population is higher than before.

The significance of social capital for IEM has been demonstrated by various studies. Social capital encompasses a wide variety of connections and networks that people maintain with family, friends, neighbours, colleagues etc. and the social resources that can underpin, and may be embedded in, these ties such as trust, shared identity, shared language, common beliefs, reputation and norms of reciprocity. As an approach embedded in social networks, social capital shifts the policy debate on IEM from its current focus on human capital. Research suggests a positive link between social capital and the enhancement of economic productivity, community development, social reform and social inclusion (Zinnbauer, 2006).

Whilst the relation between social capital and the Internet has been investigated by various studies, there is little work which applies the social capital approach to the field of social computing. Social computing refers to Internet applications, which on a basic level integrate networking and socialising. The wide array of social computing applications include new forms of many-to-many communications (Orkut; MySpace), sharing of audio-visual material (YouTube; Flickr) or sharing of tags (del.icio.us;

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4 http://www.ohchr.org/english/law/diversity.htm
5 Data from the European Community Household Panel, a survey from 1994 to 2001, showed that immigrants had a higher level of education than natives. On average, 22.5% of immigrants held a higher education degree, against 16.4% for natives. Conversely, only 41.5% of immigrants had less than secondary degree vs 50.8% for natives (De Palo, D., et al. (2006). 'The Social Assimilation of Immigrants', IZA DP. No. 2439, Bonn).
6 Much of the policy debate about integration of IEM tend to focus on the importance of skills, education, language abilities or the need for better credentials recognition. For instance, in Canada it has been noted that notwithstanding the increase of skilled immigrants, the economic performance of immigrants is declining. For further information: OECD. The opportunity and challenge of diversity: A role for social capital. [Online] http://policyresearch.wbg.org/poverty/social_diversity/htm
8 Social networking has existed for many years, however, the ability to transpose these two qualities to digital networks have prompted the development of various technological applications. Barabasi, A.-L. (2002). Linked: The New Science of Networks. Cambridge, MA: Perseus.
These applications have been developed relatively recently and their use has grown significantly. In the context of cultural diversity, social computing could act as an enabler for social inclusion in many ways. When IEM arrive in host countries, they are faced with various challenges, varying from finding housing, establishing careers and searching for social support, at a point when they have just changed their social networks. Social computing applications provide new forms of social networking and knowledge sharing. Their potential in building and transforming social networks across space and time enables users to expand their social networks and the resources that emerge from these networks, hence their potential to enhance social capital. They also allow a great deal of free expression and interaction amongst users, irrelevant of their background. This might be an effective way of enabling and supporting economic and social integration.

In 2003, iSociety presented one of the few studies in this field. It explores notions of social capital, social software and the significance of social networks (Davies, 2003: see footnote10). Since then, social computing applications have evolved significantly and their impact on social relations has become more influential. This is an opportunity for further exploration, so as to get a better understanding of the potential of social computing applications and how they could be useful in enabling inclusion and fostering cultural diversity.

To address these challenges and opportunities, the eInclusion Unit of DG Information Society and Media (European Commission) and the Information Society Unit at IPTS organised an expert workshop on ‘ICT, Social Capital and Cultural Diversity’. The objective of the workshop was to discuss key integration issues for IEM which could be addressed by new ICT applications, so as to identify policy recommendations which may support the European Commission in the preparation of the 2007 Communication and a 2008 Initiative on these topics. The workshop was attended by twenty-four experts from various fields (see Acknowledgements).

The workshop was based on the assumption that ICT can positively affect social capital. Starting from this hypothesis, the experts set out to investigate to what extent new technologies, in particular social computing, enhance social capital and act as leverage for integration of IEM. One of the objectives of the workshop was to validate this assumption and to explore new avenues for using ICT and new emerging technologies for social capital.

Taking the increased participation of IEM in the European information society as a major objective, the experts discussed the following interlinked questions:

- under which conditions can social capital be used as a lever to counter digital exclusion? How could we exploit ICT-enabled opportunities to promote greater socio-economic integration and cultural diversity?
- how can new ICT applications and services, in particular social computing, contribute to addressing crucial integration challenges and to supporting creativity and entrepreneurship of IEM?
- which kind of instruments can the European Commission -and particularly DG Information Society and Media- mobilise to enhance social capital and its cohesive effects through the use of ICT? How should innovation and research agendas be encouraged to respond to the considered challenges? How could successful experiences be best replicated?

This report presents the results of the workshop in combination with additional desk research.

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Method
The workshop was structured around three sections, each section taking a different methodological approach. In the first session, the significance of social capital for migrants and the potential for social computing in fostering cultural diversity was discussed through presentations. The second section explored key integration issues and opportunities IEM face in specific domains which could be addressed by ICT applications through the use of visionary storylines. The final section aimed to elicit suggestions for policy recommendations. This report follows the same structure.
2.1 Introduction

Mobility of individuals is a major characteristic and a concern of contemporary societies. Immigrants and ethnic minorities are generic terms which encompass a wide range of different social groups and conditions, whose character and relevance are also constantly changing through time and space. Recent international reports allow us to shed some light on IEM diversity, the current situation of IEM and the relevance of IEM for economic development:

- Currently, there are around three million legal long-term immigrants entering OECD countries every year.
- A sharp increase in immigration has been noted in US, Australia, Canada, Italy and UK.
- Spain and Ireland have evolved from countries of emigration to host countries with thriving economies. Spain is now probably the second most important destination country for new immigrants in the OECD area after the United States, although the United Kingdom comes close. Malaysia, the Republic of Korea and Thailand are undergoing similar transitions. Studies show that emigration has played a decisive role in reinvigorating their economies.
- Migration is no longer characterised by 'south-to-north', but also by 'south-to-south' migration.
- Half the increase in the number of migrants in OECD countries is made up of highly skilled individuals aged 25 or over.
- The greater involvement of Asia, Africa and Latin America in global immigration has resulted in an increase of cultural diversity, in terms of ethnicity, language, education, income and profession, amongst other attributes.
- The funds migrants send back home, which in 2005 amounted to around $167 billion, are much higher than all forms of international aid combined.

The above points illustrate that immigration is a complex and diverse phenomenon, on the increase, relevant in figures and with evolving patterns.

2.2 Need for a rich definition and clear terminology

The term 'migrants' is broad and encompasses different types of individuals. Generically, the term refers to people who live temporarily or permanently in a country, which is not the one where they were born. However, according to some states' legislation, people may be migrants even if they were born in the country, as in the case of children of migrants. European enlargement makes definitions even more complex and unstable, since the formal status of Eastern European migrants coming from new member states is now different from that of Eastern European migrants from non-member states and of non-European migrants. Nonetheless, many of the conditions they face and their integration challenges are substantially similar.

The experts underlined that qualification of the different IEM groups is important for policy making and research. The conditions and needs of immigrants and ethnic minorities can be radically different...
and hence, policies and research treating these groups as an homogeneous entity could be misleading. Also, it should be taken into account that ethnic minorities are one group of minorities and that other minorities, e.g. religious and sexual minorities should be considered as well. The experts also pointed out that the distinction between the terms 'immigrants' and 'expatriates' is not always clear. There are times when the terms are used interchangeably and other times when the term ‘expatriates’ is used to refer to immigrants coming from richer countries. This is especially the case with various websites dealing with information for immigrants.

2.3 Key IEM attributes

The prevailing purpose and duration of migration are two key attributes to consider for better understanding of IEM diversity and related needs.

2.3.1 Prevailing purpose of migration

Which immigration type prevails in a specific time period has crucial consequences for policy setting. For instance, comparing a previous period when labour migration was predominant (the 1960s) with one when migration consisted more of humanitarian and family migration (the 1990s), one finds that labour market integration of immigrants became more difficult in the latter period.\(^{16}\) Beyond the changed macro-economic context, a possible reason is that migration for employment is often the result of selection processes (by employers or by state-managed mechanisms), which is not the case for family reunification or formation and humanitarian migration. The situation also differs across countries. In southern Europe, for example, which has seen high inflows of labour migration in recent years, the current employment rates of new arrivals are even higher than those of the native-born population.

Family migration (family members who accompany migrating workers or migrate to reunite with other family members) is still predominant in the inflows to most OECD countries, even in countries where worker entries are now more common than in the past, as is the case in Portugal, Denmark, Switzerland and the UK. However, a renewed interest in migration for employment is visible in many countries. A key driving force of the overall increase in immigration is the increasing need to address current or expected labour shortages in a wide range of skilled occupations. The driving force of labour migration is particularly apparent in the new immigration countries, such as Spain and Ireland, where immigration is essentially labour-market oriented. Yet, one also observes an increase in work-related migration in many other countries.

2.3.2 Temporary migrants

The European Union has opened many borders between its Member States, with a view to increasing and facilitating mobility. Several European countries now have temporary worker migration programmes, and the scale and scope of these have been growing over the past decade (temporary workers, seasonal workers, working holidaymakers, contract workers). Other temporary-type movements, such as intra-company transfers of managers within multinational enterprises, traineeships and cross-border movements linked to provision of services have also become popular. Moreover, the international mobility of students (including mobility supported by EC schemes like Erasmus) also has gained momentum in recent years, particularly in New Zealand, Japan, Australia, France and Germany.\(^{17}\)

2.3.3 Length of stay

Integration and social support needs vary considerably between newly-arrived migrants and long-term migrants. Studies on the cohorts of immigrants that reached Western Europe before the mid-1990s from non EU-15 countries\textsuperscript{18} have shown that initially, these immigrants (especially immigrant females) tend to have lower activity and employment rates than natives, and higher unemployment rates. The differences progressively diminish as the length of stay in the country increases and, after 15 years of residence in the host country, most differences in labour market outcomes between non EU-15 immigrants and natives have disappeared.

Also, cheaper and faster modes of transport have facilitated back-and-forth patterns of mobility, which have resulted in new forms of migration often referred to as \textit{transnationalism}.\textsuperscript{19} A substantial number of today's migrants who live and work in one country still consider another country as their home countries. Migration is increasingly becoming an ongoing movement. Despite great distances and international borders, certain kinds of relationships have become globally intensified.

2.4 Conclusions

Over the past few years, major changes in immigration processes can be noted. Although family migration is still a predominant reason for migration, a renewed interest in migration for employment is also noted. Temporary migration is considered to be one of the major factors contributing to the overall increase in migration level. Immigrants entering Europe are becoming more diverse, bringing with them different languages, cultures and religions. In the face of these changes, the workshop emphasised the need for Europe to clarify its overall immigration policy approach and to endorse cultural diversity as an opportunity.


3. The Role of Social Capital for Inclusion of IEM

3.1 What is social capital?

Social capital encompasses a wide variety of connections and networks that people maintain with family, friends, neighbours, colleagues etc. and the social resources that can underpin, and may be embedded in, these ties such as trust, shared identity, shared language, common beliefs, reputation and norms of reciprocity. These resources make it easier for people to work and live together and it has been demonstrated that they play a beneficial role for health, education, public participation and the realization of economic opportunities. Research shows that social capital can be a very important factor in the life of IEM and the communities where they live. It has therefore been studied extensively.

Over the past few years, social capital has also evolved into an important objective and cross-cutting policy tool for addressing some of the root causes of social disparities. Adopting a social capital approach leads us to look at the individual, at his/her problems and the available opportunities, not as an isolated entity, but within the social context where the person lives. This also directs attention to the various bottom-up networks and associations which are powerful allies in reaching out to people at risk of exclusion. Such networks offer complementary mechanisms through which public goods can be provided and inclusion initiatives delivered - for example: charity work, counselling and training programmes, research, awareness-raising, and support to grass-roots and self-help initiatives.

There is an important distinction, for the purpose of inclusion between:

- **bonding social capital**: tight, strong ties with the most immediate family members, closest friends and within closely-knit communities of like-minded people that are bound together by common features that they regard as fundamental to their identity, such as ethnicity or deep religious beliefs;
- **bridging social capital**: rather looser, less committed connections to acquaintances, colleagues, and far-flung, weaker ties between rather diverse communities (see footnote 7).

3.2 Social capital: a key resource for IEM integration

The relevance of undertaking a social capital approach to address and understand cultural diversity was confirmed at the workshop. According to Maya Jariego, the use of social network analysis to study international migration enables a better understanding of changes in social integration, in the structure of the social network and in the support functions that result from them. Social network analysis illustrates that the needs and support required for psychological adaptation and social integration vary across different levels of chain migration. Social networks allow researchers to identify patterns of interaction between displaced individuals. These networks are important as they often influence the decision for immigrants to migrate. They also influence family regrouping, the formation of communities of compatriots, the acculturation process and social integration.

Similarly, differences in size, composition, structure and multiplicity of social support networks have great influence on the level of immigrants’ social integration, the structure of their social networks, and their social support. For instance, first time immigrants, generally referred to as first generation migrants, find it harder to integrate as they have no social ties with the host society, or very few. This makes them 'network pioneers'. On the other hand, the relatives and friends of the same migrants tend to find the migration process a bit easier due to 'economies of networks'.

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21 Chain migration refers to: "displacement and relocation processes of networks that involve relatives, friends and acquaintances. Chain have a bearing on the decisions that are made before undertaking international travel and on the subsequent settlement process" (See footnote 20).
During the workshop, various examples were provided of the importance of social networks in the migratory process for finding jobs, accommodation and psychological support, for example. The following sections illustrate the main points highlighted during the workshop.

3.2.1 The importance of social ties

The size and composition of IEM's social communities change during the migration lifecycle. As mentioned before, these are important indicators of IEM integration and also determining factors of inclusion dynamics. Following migration, ties with people from the country of origin, with whom immigrants remain in contact are often transformed in latent ties and reorganisation in the distribution of support functions is often noted. At the beginning of their trips, immigrants tend to belong to very dynamic communities. As they settle down, support functions change and, increasingly, the behaviour of immigrant groups becomes more similar to mainstream groups. Indeed, it has been noted that the size and the organisation of IEM communities are important factors which determine the structure of opportunities in establishing new contacts. In addition, the way families regroup themselves may also condition the distribution of support functions.

The partial loss of social capital through migration and its reconstruction when settling in the new country have an impact and influence on various IEM decisions. It is often the case, that migrants rely on their social ties when deciding whether they will migrate or not, which country to choose, and how to go about adapting to and integrating into their host country. These ties enable the adaptation process but also tend to limit other opportunities that immigrants could find in the host countries through other contacts outside their immediate circles. Such opportunities could vary from employment to participating in a football club. The resources second generation migrants are able to access are often the resources their pioneers have already established access to.

3.2.2 Social networks for employment

Estimates by the U.S. Department of Labour show that 70 - 80% of jobs in the US are found through networking (including contacting potential employers directly). These ties, or ‘network capital’, refer to the interpersonal links used by individuals to find jobs. Research carried out in Canada shows that substantial differences exist between intra-ethnic or inter-ethnic ties in job searches. This is significantly conditioned by the availability of the ties in IEMs' social networks. This work illustrates that the availability of *intra/inter-ethnic* ties depend on the socio-demographic and socio-economic characteristics of job.

Professional networks are important for collaborative work, innovation and information flows, which have been found to raise productivity. Also, trust, social norms of fairness and good faith, which cannot be guaranteed by laws and regulations alone, are indispensable for the efficiency of a market economy (See footnote 5).

3.2.3 Bridging and bonding social capital

Experts pointed to the need to consider the different roles of bonding and bridging capital for IEM. For IEM, bonding social capital expresses itself in the form of vital resources to provide a sense of identity and belonging, as well as practical support networks for everyday life. Bonding social capital is

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acknowledged to be very important especially in the early stages of migration and settlement, but there is a risk that segmented enclaves are created which, ultimately, have a negative effect on the process of integration in the host country. Bridging social capital, however, creates genuine (albeit often weaker) links between diverse communities, which are necessary for integration in the context of multi-cultural societies.

Research from SOCQUIT\textsuperscript{25} shows that migrants, especially in the first generation, develop less bridging social capital (measured here in terms of involvement in voluntary associations) than non-migrants. As regards bonding capital, however, they socialise as intensively as do non-migrants in most of the EU countries. Similar conclusions are reached by De Palo et al.,\textsuperscript{26} who found that migrants (particularly those from non-EU origins) are at a disadvantage in terms of social relations as they tend to socialize less than natives. Nonetheless, the same immigrants tend to catch up with natives, albeit quite slowly (after more than 15 years).

3.3 Limitations of a social capital approach

Experts at the workshop recognised the potential a social capital approach could have for IEM inclusion. However, they also drew attention to some limiting factors related to this approach:

- A social capital approach could be useful in policy-making for IEM inclusion, but if it is taken as the only approach, it can be limiting. Other categories of social science research, such as social cohesion, greater integration of IEM and greater contribution of IEM to economic and social life should also be taken into consideration.

- It was pointed out that social gatekeepers (who normally exist and operate where bonding social capital is strong) can have a "regressive" impact on ethnic community development and broader integration.\textsuperscript{27}

- Conflicting social dynamics both within and outside one's community are often not taken into account.

- As social capital is based on social networks, the probability of neglecting people that are isolated and "disconnected" from social networks is high.

Experts pointed out that these aspects tend to be obscured or forgotten in a social networking / social capital analysis because it has a tendency to emphasise the positive nature of social networks.

\textsuperscript{25} Heres, J. (ed) (2006) Conclusions and recommendations report. SOCQUIT Deliverable 14. SOCQUIT project (Social Capital, Quality of Life and Information Society Technologies) was funded under the FP6 IST programme. [Online] http://www.eurescom.de/socquit/


\textsuperscript{27} Examples were given of religious extremists regulating the secularization of community members or traditionalists sanctioning sex and drugs behaviours in South Asian communities in London.
4 THE POTENTIAL OF SOCIAL COMPUTING FOR CULTURAL DIVERSITY

The impact of technology innovations on society and its economy must be recognised in Europe's efforts to formulate effective policies for the integration of IEM. Experts have acknowledged the potential new technologies, such as social computing, have for enabling alternative ways and means to integrate IEM. In the next section, we explore what social computing is and its potential for IEM inclusion.

4.1 What is social computing?

Social computing is a broad phenomenon and there have been various attempts to define it. It is a term coined to describe software which supports social interaction and communication. In essence, it refers to ICT applications, which, on a basic level, integrate socializing and networking (specific functionalities are discussed below in section 4.3). As explored by Barabasi (2002), social networking has existed for many years, however, the ability to transpose these two qualities to digital networks has prompted the development of various applications. Users conversant with these technologies continuously explore and discover new ways and means of establishing and maintaining social relationships and of sharing of knowledge and information.

For the purposes of this study, we propose the following working definition of social computing:

"an intermediary tool for social and collaborative communication, which facilitates social networking and multimedia interaction amongst individuals, beyond institutional intervention, on a scale as never imagined".

An important factor which has contributed towards the success and popularity of social computing applications and which has pushed us to consider these applications in the context of inclusion is their growing accessibility, both in terms of ease-of-use, and financial value (in most European countries, access to Internet is affordable by a high percentage of the population). Equally important is that these applications also encourage bottom-up social networks which could be a powerful means of reaching people at risk of exclusion.

It is important to highlight that this section does not claim that social computing will resolve the complex IEM processes of integration. However, as a priority in promoting an inclusive Information Society, the role of ICT cannot be studied in its entirety, if the potential and prospective impacts of new technologies are not taken into consideration. Beyond social computing, which is addressed below, mobile phones and mobile-based services were also mentioned by the experts as relevant ICT already much used and potentially very beneficial especially for immigrants.

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28 As early as 1994, the Communications of the ACM Journal dedicated an edition on social computing. Schuler (1994) described social computing as "any type of computing applications in which software services act as an intermediary or a focus for social relations". Recent definitions include the one offered by the IBM Social Computing Group, which describes social computing as "systems which support the gathering, representation, processing and dissemination of social information, that is, information which is distributed across social collectives such as teams, communities, organizations, cohorts and markets". Forrester Research (2006) describes social computing as "easy connections brought about by cheap devices, modular content, and shared computing resources …Individuals increasingly take cues from one another rather than from institutional sources like corporations, media outlets, religions and political bodies". As these definitions illustrate, the understanding of social computing goes beyond simple references to computing systems. It is more of a phenomenon which is broad and which has shifted from being an intermediary for social relations and dissemination of social information to becoming a way to facilitate social and collaborative interactions, whereby the social human intervention plays a fundamental role. (Schuler, D. (1994). Social computing. Communications of the ACM (37) 1, p. 29; IBM Social Computing Group: http://researchweb.watson.ibm.com/Social Computing/SCGFAQs.html; Forrester Research (2006) http://www.forrester.com/Research/Document/Excerpt/0,7211,38772,00.html.

4.2 The bridging and bonding potential of ICT

Literature about social capital and the Internet clearly demonstrates an ongoing debate about whether the Internet increases or decreases social capital in societies. One view suggests that the lack of face-to-face communication inherent to Internet communication decreases social capital, as the trust characteristic of geographically local networks is difficult to create and maintain on the Internet.30 Other views suggest that because the Internet facilitates new ways of communication and social contact, it can thus build and transform social capital.31 It is argued that as social connections become increasing intertwined with the Internet and geographic communities evolve into networked communities, ICT could enable social capital and civic engagement.

ICT networking tools appear to amplify the bonding effect, by helping to strengthen internal community bonds and by helping people to stay in touch with their countries of origin, rather than weaving social networks across ethnic boundaries. While supporting bonding social capital is in itself positive, it has also raised concerns. Supporting ethnic self-help and the self-organisation of migrants can probably ease the inclusion process into an Information Society for all in the long run, although at first it might slow it down (see footnote 25). For this reason, specific parallel actions to promote open mainstream voluntary associations for cultural diversity are recommended, in order to create a balance between bonding and bridging capital of migrants and hence facilitate their inclusion.

It has been observed, however, that the bonding-boosting effect of ICT tends to diminish (at least in relative importance) over time and that it may hide intra-ethnic community or identity-building processes which are preliminary and should be 'opened up' to other groups.32 It is often forgotten that ethnic communities (especially when their size increases), besides showing strong cultural and identity traits, also tend to develop their internal differentiation by gender, generation, language, sexual orientation and other factors. Connecting first with one's peers within the same ethnic group is often easier and brings the confidence, support and other resources which allow then to bridge to other communities.

Useful examples of ICT initiatives which address the needs of IEM and try to promote greater inclusion are:

- Maghreb.nl is a highly interactive website that provides an online space for young people of Moroccan origin living in the Netherlands to socialize, discuss and share information;
- Melting Pot Europe project in Italy provides news and anti-discrimination resources on citizens' rights and advocacy for immigrant communities in several languages;

4.3 The potential of social computing for inclusion of IEM

The phenomenon of social computing is relatively new. It is therefore still difficult to gauge its impact on everyday life communication and even more so, on the way it could enable inclusion. The popularity of social computing sites has prompted various debates. Work carried out by IPTS indicates that it has the capacity and force to disrupt existing social and economic relations and thus have major impacts on society (see footnote 9).

Experts at the workshop acknowledged the potential and relevance of social computing for inclusion. They agreed that social computing applications may facilitate social relations and thus, could act as leverage for social capital. It has been acknowledged that networking sites and ICT use may facilitate the deployment of more contacts, extension of personal networks and weak ties. More often than not, the relations created online tend to be weaker than those of physical close-knit communities. Nonetheless, recent studies show that virtual ties are becoming as significant as ‘real’ life ones, reflecting community ties which are intermittent, specialised and varying in strength (Wellman & Gulia, 1999).33 Such weak links are evolving into new forms of social capital bridging.

Research illustrates that repeated exchanges between people over time are significant in enhancing social capital. This depends on regular exchanges of advice, favours and information, etc.34 Much of what is shared through social computing sites amongst young people may appear to have no relevance to social capital, as it often revolves around friends, fashion and music. However, the increasing dependency on such friends could also become a significant link when a job opportunity, ethnic identity support or help during an exam are needed.

Experts also highlighted some concerns about the use of social computing applications in immigrant integration processes. The ease with which self-serving communities can be created does not necessarily lead to social participation. Hence, a distinction should be made between the potential use of these applications and their actual use by IEM. It has also been pointed out that the networking facilities of social computing applications could be used to support extremism and other negative social behaviour, such as the mobilisation of riots and terrorism. In some cases, privacy concerns might also limit IEM's disclosure of basic information required by social computing applications.

The wide array of social computing applications will be discussed through a categorization of their potential use amongst IEM, as displayed in Diagram 1.

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The provision of various levels of interaction and participation between users make these applications more technologically advanced than previous online solutions. Sites like MySpace, Friendster, Hi5 and Facebook offer various interactive applications, like comments, tags or forums, through which users can communicate, share, socialize, network, hang out and present themselves to their peers.

A study by Pew Internet (2006) illustrates that these spaces serve as an important personal identity development tool for youngsters. For many teenagers in the US, these sites reflect the primary shift young people experience from relationships with their parents to relationships with their friends. The basic level of entry into most social computing sites is the setting up of a 'profile': a personalised page developed by users on which they present themselves to their peers, through text, photos, music and videos amongst others functionalities. Similar to other fashion fads, profiles are a way for users, especially teenagers, to play with their identities, in order to receive peer acceptance. These sites, albeit on a very basic level, seem more like online galleries set up and managed by individual users. However, the underlying significance of some sites for social identity is important.

Social identity and peer validation can become highly complicated because of the migration process itself. In a context, where language or physical attributes differentiate one from the rest of the population, peer validation may be complex. Participation in online applications, where physical attributes can be bypassed can serve as leverage for participation in social networks.

35 http://www.pewinternet.org/PPF/r/77/presentation_display.asp
Also, facilities to initiate self-organised collective communities could be a way for IEM to come together to construct identities through which they could challenge their marginalised status.37

Social Computing as a media channel for user empowerment

The experts highlighted the potential of social computing applications in fostering user empowerment. Whereas before, media content was designed in a top-down process, which allowed few opportunities for audience intervention, except for features like letters to the editor in newspapers and phone-ins in television and radio, today a lot of Internet media content is user-generated. Facilities to publish or edit text (blogs, wikis), upload and share images (Flickr) or audio-visual content (YouTube) and share information resources such as bookmarks (del.icio.us, ) irrelevant of computing language expertise (such html, xml etc)38 are altering basic concepts of media audiences, and shifting interaction from consumption to participation.

During the workshop, it was suggested that the IEM integration debate should take into consideration the full spectrum of media. For instance in the Netherlands, immigrants felt they were not well-represented by mainstream television. The need to publish their own news led to a web publishing project, which created bonding within the communities and also bridging with the Dutch Government and native communities.

Possibilities to share and exchange photos or audio-visual material could be highly significant in creating and maintaining social relations with family and friends in home countries. These sites provide various opportunities for IEM to both produce and consume media content, which is embedded in their own cultures. This shows the huge potential of these applications in providing media space for representation for difference cultures. This is possible as a result of low entry barriers.

As communication means increase and applications like social computing applications provide new forms of interaction, the need for further in-depth research was emphasized during the workshop. The versatile nature of these applications also means that research should address different aspects of their potential in empowering IEM and the real needs of IEM should be captured. The need for both quantitative and qualitative data which can be compared across countries, nationalities and age groups was highlighted. The experts also pointed out that research is required to identify how governments can use social computing applications and how they can play a role in promoting the positive implications of these applications through their policies.

Social computing strengthens and expands online relations

The increasing activity on social computing sites is significant because it gives an indication that online social relations are becoming more and more important especially in the lives of young people. As the networks grow and the opportunities to have as many friends as one likes becomes broader, the significance of online relations in young people's lives is growing. The "full-time always-on" strategy has become a critical element in young people's lives (see footnote 36).

A study carried out in 2003 (amongst US citizens aged between 18-64) demonstrates that more time spent on the Internet is less time spent with friends, family and colleagues.39 The study emphasizes that this does not mean that face-to-face interpersonal relationships will disappear, but rather that time spent online involves a trade-off of face-to-face social interactions. The increasing significance of

38 On the other hand, a good number of pages on MySpace do not satisfy the criteria valid for HTML or CSS as set by the W3C standards (http://en.wikipedia.org/wiki/Myspace).
online social relations in everyday communication is an indication that these relations cannot be underestimated.

Connectivity factors that allow users to expand their social ties constitute an important innovative aspect of social computing applications. Interactive facilities offered through these sites, such as tags, common friends and groups provide various ways users can connect with each other across space and time. For instance, through applications such as Facebook, users can link to other users who went to the same colleges, who are of the same nationality or who live in the same neighbourhood. It enables different ways of keeping people who are in different locations in touch, while also providing ways and means of linking with local communities. During the workshop, the experts questioned whether the impact of these applications is only applicable to young people and how such applications are affecting social relations amongst IEM communities. It was also suggested that caution and deeper analysis is needed to understand the extent to which users are ready to become more sociable at the price of greater self-exposure.

-> Social computing could enable reciprocity exchanges

The degree to which users will adopt the Internet is found to be highly dependent on how willing they are to trust other users, especially in the context of greater anonymity and possibilities for exploitation associated with the Internet. In the absence of face-to-face interaction, a great deal of non-verbal communication data is lost and hence, trust becomes a significant issue.

Networking facilities, characteristic of most social computing applications, offer various ways for intermediaries to provide the missing link between strangers. On sites like LinkedIn, users can mutually introduce their trusted contacts to each other. As the objective of such business sites is to allow users to maintain a list of contacts they know with whom they are likely to do business, the provision of a connection between two users through an intermediary can be significant, especially because this site in particular grants membership only to friends of friends.

However, as one expert pointed out, research shows that trust is dependent on the length of the contacts chain and thus, the trust-building potential of weak links is more likely to be reduced rather than consolidated. As trust plays a major role in social networking, participants pointed out that examining how it will affect the evolution of social computing applications could be useful. One possible scenario put forward at the workshop suggested that social computing applications and peer-to-peer networks would evolve into closed communities. Smaller social communities tend to benefit more from higher levels of trust and mutual support than bigger networks. As opposed to large networks, small networks are generally based on stronger ties or bonding social capital between long-standing friends and family who regularly depend on each other in times of need and who do favours knowing they will be reciprocated.

> Social computing enables sharing of content

Technological progress in the field of social computing provides new ways of sharing information and hence, in many ways, it contributes to the way learning processes in our societies change. As social computing applications become easier to use and users becomes more conversant with such technologies, new data-sharing platforms compete with the traditional ones. For instance, the

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proliferation and use of blogs are evidence of such changing trends. The bottom-up approach taken in the use of such applications proliferates new ways of sharing information and learning.

The interactive nature of blogs is also an instrument for participatory capital. Blogging is unique in that it thrives on social networking, collaboration and freedom of expression. Combining elements of a personal homepage with the interactivity of many-to-many communication, blogs have given rise to new forms of online communities. Such information outlets could be useful in obtaining information about current political events, perspectives on social issues and day-to-day aspects, such as where to obtain an electronic application for a banking service.

The collective knowledge, capability and resources gathered on social computing sites through broad networks of participants provides various opportunities for collaboration amongst globally dispersed individuals. One of the most successful projects in this respect is Wikipedia: a free online encyclopaedia, which allows users – even those with divergent perspectives – to post information on a subject and edit the text, arriving collaboratively at a definition. Social computing sites like Care2 are also often used for the formation of communities, organisations or groups who work for similar goals. They provide platforms where individuals can initiate and maintain organisations, through which meaningful connections can be established amongst users, institutions and political systems. Such creative ways of appropriating these spaces reflect contemporary forms of civic engagement. They are spaces through which IEM could communicate, share information, organise events and participate in social events which are meaningful to them.

Experts pointed out that more attention should be paid to such user-driven social practices. Experiences with simple technologies in developing countries, which could also be relevant for Europe should be taken into account, as various lessons can be learnt, especially in terms of policy formulation.

-> Social computing supports collaboration

Research indicates that community support, expectation and involvement have a positive impact on the educational achievements of IEM youths. The potential of social computing applications to pool together the knowledge of geographically-dispersed individuals and provide various interactive functions could be a way of enabling education and consolidating social support for IEM youngsters. Wiki applications for instance, could be useful in accessing information and collaboration outside formal schooling systems.

Also, online social networks are increasingly becoming major platforms for collaboration amongst artists, notice board for events and a space for discussion. Virtual migrants association is a group which aims to bring together a range of artists, who are concerned with the themes of race, migration and globalisation. Apart from the group's website, the association streams their collaborative audio projects on MySpace. This space also offers different opportunities for other users interested in the same ideas to become 'friends' and to be able to comment and communicate with this group. This group is particularly interesting as its objective is to bring together people who share an artistic identity, and not only a migrant identity.

Such creative formations provide various opportunities for translocal and transnational collaboration. On a local level, this could be a way for people from different cultures living in the same country to become involved, collaborate and share similar interests. In the case of the virtual migrants’ association, various creative group efforts have taken place through a wide range of musical collaboration from Afro-French hip-hop to Kurdish semi-classical music. Such efforts reflect alternative ways of integration based on recognition and appreciation of human diversity and commonality. On a local level, their MySpace profile is important as it is a space which brings together different users interested in similar topics. Apart from a space for discussion, it is also offers a form of notice board, through which users interested in such events can inform, promote or discuss upcoming events.
The potential of ICT in the transitory period of migration was highlighted during the workshop. Part of the migration and integration process consists of finding new ways and means of relating to society. Contact and social support are not always immediately located. Meeting other people who are in a similar state of mind, who share similar interests or culture may prove to be difficult.

Experts pointed out that social computing applications are increasingly a means of social capital bridging between previous networks (strong links) and the new networks in the host country (weaker links). Various studies in this area have shown that technology plays a major role in how immigrants keep in touch with their home countries. In the absence of community support, IEM seek different ways and means to sustain contact with those who share similar history and experiences. The Internet offers a multitude of opportunities for communication across continents at a minimal cost varying from simple text email to VOIP. In this respect, the significance of Skype and use of blogs amongst IEM was highlighted. The Skype application is popular because it allows two people to exchange verbal communication and video conference for free. For many immigrants this is one way of keeping in touch with family and friends in home countries at a very low cost. Similarly, blogs provide a way of keeping in touch with host countries through textual communication. The added value of blogs in this respect is that they allow users to exploit many-to-many communication and interact with various users through comments facilities.

Social computing applications add another level of attachment. They provide various ways for people to link to each other, because they like similar things, want to organise a local event or because they happen to speak the same languages. As one expert pointed out, these applications could provide significant help to IEM in avoiding disruption of social capital and individual frustration stemming from feelings of being left out of social networks. In some cases, interaction through social computing applications could act as a substitute for the lack of physical community support that migrants may face in the host countries.

On a transnational level, such sites provide ways of collaborating with artists from the home country. Podcasts for instance, enable users to keep track of new music from artists in their home countries. Such interlinks with home countries through new technologies could provide various networks of social support which could be missing, or not as strong, in the host countries.

Various studies have indicated that there is a positive correlation between social networks and successful job hunting. As discussed previously, this form of network capital links people’s interpersonal relationships with job opportunities. In his work, Granovetter illustrates that weak ties are important for obtaining professional-level jobs (1973, 1974, 1982). Research demonstrates that individuals who are socially well connected have better chances of finding job opportunities, especially through their weak links. In the context of IEM, social networks play a major role in job search.

One social computing site which operates on this friend-of-a-friend notion is LinkedIn. This site offers various ways users can search for jobs, people and business opportunities recommended by their

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trusted contacts. The value of the site is that, through the vastness of its network, social networks based on weak ties can enable business and job opportunities. As jobs become less linked to geographical locations, such sites become useful as they provide alternative opportunities to location-bound jobs. In addition, apart from increasing weaker ties, such platforms provide new ways of accessing a network outside of one's ethnic group.

Experts pointed to a project where IEM successfully used the potential of ICT applications for employment. In Holland, it was noted that job seekers with Arabic names, especially after the New York bombings, were hardly ever called for job interviews. Students pretending to find jobs using Dutch or Arabic names found that those using the latter had more difficulties. They published these results through ethnic portals and now both companies and the Dutch government are trying to ensure fairer conditions in the job market. This year more than two hundred organisations promoted their traineeships through Chinese and Moroccan web sites based in the Netherlands.

Experts also suggested that governments could help in this respect by funding and supporting portals in the countries of IEM origin. Such portals could enable IEM to establish employment links before migration, hence easing integration once migration actually takes place.

-> Social computing as leverage for social participation and civic engagement

It is often the case that IEM are left out of basic operations of society, like for instance, voting (on a formal level) and discussion or involvement in political groups (on a less formal level). The ability to express oneself, to be unique in voicing your opinion and communicate it to the world is very significant. In many respects, blogs tend to act as contemporary forms of an agora, where debate, especially on topics related to politics and current affairs, can take place. Such spaces offer various modes of interlinking with people who share similar interests.

Participation in most social computing sites is either completely open or based on invitation by other users. In most cases, users are asked for registration, through which users create their own accounts. Once registered, users participate, through posting of content, feedback, tags, ranking, notes, favourites and networking with other members. Similar to peer-production communities, participation on such sites varies from fun to something of more direct value.46 While one user will participate on Flickr to share family photos, another user will do so to promote his photography with the aim to sell his/her work.

Efforts in enhancing social participation play a central role in the promotion of civic engagement. Various studies have shown that participation in the development and building of a civic society empowers citizens in driving social change leading to a more democratic world. As we have discussed before, new technologies provide various ways of participation and collaboration, however, the issue at stake is whether outsider groups, such as IEM could reap the benefits of ICTs to voice their opinion and participate in political fora.

Experts referred to a number of local ICT-enabled projects where IEM organised themselves, in order to reach the media, fight racism, voice an opinion and participate in political debates. Although the size of the projects mentioned was generally small, the positive impact of these projects in promoting cultural diversity and fostering inclusion policies could already be noted.

Nonetheless, we believe that social computing applications offer various opportunities to enhance social capital and hence, if used creatively, could have a positive impact on how people live and work together.

4.4 Conclusions

The role social computing can play in improving the integration of IEM is important and worth exploring further. The use and relevance of social computing is particularly apt as a means of:

- social capital bridging between previous networks and the new networks in the host country;
- avoiding disruption of social capital during the migration process
- providing a substitute for the lack of physical community support
- providing media space for representation for difference cultures
- empowering IEM through the provision of various levels of community participation
- building a platform for information, communication and interaction in the pre-departure stage
- building effective bottom-up, self-organising and user-driven initiatives and solutions
5  EXPLORATION OF SELECTED DOMAINS

During the workshop, storylines were used to explore specific key domains where ICT are highly relevant for the integration and inclusion of IEM and to identify areas for further research. The three areas explored were: take-up and use of online services, ICT in education and learning, and employment and access to capital. This chapter presents the storylines illustrated during the workshop and the major points that emerged from the experts' discussion following each storyline.

5.1 Take-up and use of online services

An ever growing number of services in our society are provided through ICT-based delivery channels. Although, in most cases, parallel off-line services are still maintained, particularly in the delivery of public services, new services are often launched only digitally. Such services are sometimes less effective and more expensive for the customers. Indeed, the take-up and use of online services is not only dependent on providing access, but also on the effective use of these online services.

In the commercial private sector, areas like banking, transport and travel, audio and video consumption, digital gaming, news and information services already rely heavily on online delivery channels. Commercial online services specifically designed and/or adapted for IEM customers are being provided, but very little is known about them.47

In the public sector, online services are widely used for dissemination of information, such as opening hours, available services and related administrative forms - for example, application forms to download. Transactional e-government services are also becoming increasingly available. They are mostly relevant for tax filing and payments (and for money transactions in general), for registration services (request and issuing of personal documents, certificates etc.), for permissions and authorisations (for building, business, mobility and other purposes) and in health-related services.48 Again, not much is known about whether, in which areas and to what extent e-government (and e-health) services are being specifically designed and/or adapted for IEM customers.49

An important source of support-oriented information and services for IEM is the IEM community itself and the voluntary organisations working with it. Generally, these services include online repositories of relevant legal documentation and forms and practical advice on how to deal with public administration matters, the job market and so on. Many of these activities are, in fact, established to compensate for the weaknesses in both profit-oriented and public service provision, and for this reason, they can be considered complementary to them.

Three aspects of e-government online services are particularly critical for IEM users, namely:

• the language in which information and access interfaces are provided;
• complexity of use (IEM often lack contextual knowledge especially at the beginning of migration, such as information related to types of living arrangements, working status, social disadvantages, the role played by different public offices, the nature of certain requested documents, where to obtain them and so on);
• lack of relevant services, i.e. urgent/frequent needs faced by IEM are not addressed, or only poorly so (e.g. not customized) by currently available e-government services.50

47 An area which is witnessing much development is that of international money transfer services via mobile phone, see 'The future of money' in The Economist, Feb 15th 2007.
49 For instance, the UK Dept. for Work and Pensions provides essential information resources in addition to English in eight major languages of immigrant communities and the UK Cabinet Office has issued guidelines for UK Government websites, with best practices with regard to designing information resources in different languages.
50 For instance, in Emilia-Romagna, one of the European regions with much developed eGovernment services, the latest information society benchmarking exercise performed by the regional government found that 100% of the largest municipal governments and 78% of the provincial governments had on their web sites a section in English and mostly for tourists. The analysis of services of primary interest for immigrants showed...
Given the need to improve the design, content and delivery of digital public services to IEM (and other potential user categories as well), the following storyline was presented.

**Storyline: Improved health service access through empowered social intermediaries and social workers**

As the number of ethnic minorities kept growing, communication in the community between health carers and immigrants (especially first generation) became ever more complicated, because of language and other social and cultural factors. The increasing involvement of staff from a multi-ethnic background in service delivery has somewhat improved, but not resolved, this problem.

It was precisely during a training course for health carers (most of them students from different countries in Asia, Africa and Latin America) that the idea was launched of setting up a participatory web site, the content of which would be produced and enriched by users themselves – carers as well as patients - in different languages. News about this online health information service was spread through leaflets distributed at health centres, schools (showing children how to help their parents in accessing the site), local voluntary groups and the immigration counters in the local council's offices.

For citizens, the site today is rich with multi-language information on available services. Comments, suggestions and recommendations (linked to individual services), are put into the system by the patients themselves. Some of them even put their e-mails or phone numbers so that others wishing to talk to someone who "went through it before" can contact them. One of the most appreciated features is the service that shows the location on the city map of health-related professionals directly in contact with the public (pharmacists, counter desk staff for non-prescription drugs etc.), the foreign languages that they speak and specific problems they may be expert in (information on this can be posted on the web site or sent via text messages).

The service also provides a nationwide directory of health carers' profiles (language and competence), that can be accessed via mobile devices. This allows public officials or voluntary staff dealing with migrants in a critical situation to get in touch by phone/video with someone who can at least help in clarifying the problem and provide first advice in the appropriate language.

The site has also become an important source of information for local health authorities on relevant concerns and expectations of the immigrant community.

**Suggested research and policy challenges**

-> *Potential for expanding the role of intermediaries*

Governments and the market face various limitations in generating social trust, cohesion and hence, inclusion, single-handedly. It is often the case that IEM are reluctant to use an online public service because they do not understand how it functions. They also face various difficulties due to language, culturally-bound services and they may lack basic computer skills.

Community initiatives aimed at making Internet access more available and affordable play an important role in IEM inclusion.

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that online information for them is now quite common but in Italian only. Only 6% of the sampled municipalities had foreign language information on residence permits, 2% on social services and only one provincial authority provided multi-language information on labour market services (Regione Emilia-Romagna, "Il benchmarking dell’e-government della Pubblica Amministrazione locale emiliano-romagnola", September 2007).
Also, the role of intermediaries in facilitating access to services can be one way of addressing such limitations. Research by the EU-funded eUser project demonstrates that 'almost half of eGovernment users also act as social intermediaries, helping non-users in the family or friends to use services or actually acting on their behalf'.

In some communities, the role of intermediaries in enabling IEM to cope with adverse life situations such as illness or loneliness is highly beneficial for inclusion practices.

New ICT skills are often learnt through friends, family or colleagues rather than through formal education. Volunteers and NGOs play a significant role in this aspect, as they are the first and sometimes only, bridging link to local society. Trusted third parties can thus play an important role in providing information and mediating access to public service.

Finally, integrating IEM in the development process of a service and providing the necessary education for them to play the role of intermediaries may also be a way of complementing government services. Self-help communities, where citizens operate without the need for a very structured organisation, may also play a pivotal role in generating inclusion practices.

-> Need to better understand the potential for social computing for online public services

Emerging models of ICT and their relevance for public services should be taken into consideration. It is important to understand why the take-up of social computing applications is so high, especially when compared to the general low take-up of online public services. Further research is needed to understand the real opportunities and needs of the different actors involved. The potential value and the constraints of social computing vary according to who is using it, how and why. Actors vary from the public sector to the private sector, intermediaries, NGOs and users.

Experts also expressed some concern about the use of social computing in the context of public service delivery, namely:

- lack of verification mechanics to address trust and reputation aspects
- concern for privacy and control over one's life stemming from disclosure and sharing of information on health, personal social conditions and experiences.

-> Need to better address the specific IEM contexts and user needs

It order to ensure access and use of online public service, governments need to understand the different cultures and the specific contexts of use and needs of IEM. Several examples were raised by the experts during the workshop:

Written communication may be an obstacle for interaction with and between IEM (especially those who have newly arrived) for reasons such as: literacy (in their native language and the new one) or lack of keyboards for Arabic, Chinese and other alphabets. Basic applications and simplified communication, such as the use of visual/iconic/video elements could be a solution, however:

- visual-based communication might raise accessibility problems
- cultural/contextual aspects are critical, as different symbols and languages have different meanings in different contexts. Accordingly, extensive testing with users is required

Different means of communication for public service delivery are needed so as to reach a diverse population. A multi-channel delivery approach of government services is a way to enhance inclusion. Some IEM are disqualified from using some public services, as they may not have the required documentation, such as an identity card number, a fixed address, a bank account, etc. They may also feel uncomfortable about carrying out a transaction which lacks personal contact. Others may be

51 Press Release: 'Europeans want easy-to-find, useful and accessible public online services but supply is short'. eUser Project. September 22, 2006.
unwilling to opt for an online service because they are reluctant to give personal information, which could be used against them in the future. These are examples of cultural differences that may result in people relating differently to a basic public service.

Public services may also play a role in providing pre-departure information and services in a number of areas, such as health, employment and education. More research is needed to identify pre-departure opportunities and their impact on facilitating migration processes.

5.2 ICT and learning

Confidence in one's own ICT and familiarity with advanced digital skills such as locating information online or using key software applications are a prerequisite for effective ICT use. To date, no evidence is available on ICT skills levels among IEM, but it is likely that problems similar to those of the local population can be found. For example, only 45% of Internet users in the most advanced ICT countries in Europe feel confident using search engines, which are key tools for locating information online.

People who have completed formal education have to rely to a large extent on social support networks to be familiarised with new ICT devices and digital competences. In some cases, this is also the case for young people still at school. A recent survey by Eurostat, for example, reports that individuals in Europe aged 16 to 74 irrespective of gender, education level or degree of urbanisation persistently rank self-learning and informal assistance from colleagues, relatives and friends as by far the most important mechanisms for obtaining digital literacy and competencies. This confirms the importance of acquiring ICT skills for social capital.

Learning the local language and general education

Learning the local language and finding a job (this last often depends on the former) are among the most important factors in the early stages of the immigration process. Mastering the local language opens up opportunities outside of one’s own ethnic or national group (‘bridging’) and vice versa. It has also important implications in the relationship between immigrant parents and children, the latter's education outcome, labour market integration prospects and so on. In the UK, immigrants who are fluent in English are more than 20% more likely to get jobs than those who are not. On average, this group earns almost 20% more, according to a recent report by NIACE (National Institute for Adult Continuing Education), an adult-education charity.

In some countries, national language learning is becoming compulsory for those seeking to settle. This has been the case in the UK from April 2007. Job-seekers with poor English skills have to show they are trying to learn it, or they run the risk of having their benefits cut off. In Germany, with the new integration programme which entered into force on 1 January 2005, immigrants (both current residents and new arrivals) are encouraged to participate in a language integration course if they have limited knowledge of German.

In addition, as the number of immigrant students enrolling in local language courses grows, answering this demand becomes more difficult and public spending on teaching soars (for instance, 2005 figures for central government-supported language courses were about 410 million Euro in the UK and 208 million in Germany). Making students pay is only a partial solution. While companies which employ migrant workers might contribute, immigrants in a weaker position are often not even formally registered as unemployed (such as housewives) and are likely to suffer most. On the other hand, in

52 This section draws again on Zinnbauer, D. (2006) (see footnote 7).
57 This will happen in the UK from September 2007, at an average cost for part-time learners estimated at around £300, by everyone except the unemployed and those on income support (see footnote 57).
some countries like the UK, funds are dedicated to translation services for public services, such as the Law Courts and the National Health System (NHS).

Many initiatives aimed at IEM (especially, but not exclusively, for those that have arrived recently) undertaken by local administrations, schools and voluntary sector are based on the use of ICT for teaching/learning the local language and basic ICT skills, and also for job orientation, access to public services and other matters.58

Other critical areas in this domain where ICT plays a role, and could play a more one, are:

- teaching/learning in multi-lingual/multicultural environments in school education and professional training, for newly-arrived immigrants and second-generation children;
- and related to it, tackling the challenge of low educational attainment and high drop-out rates among foreign origin students, which is relevant in many countries.

Storyline: Laying foundations for equal opportunities

Homework-squad is a virtual meeting place were immigrant children who face language-related problems with their school homework can post problems and questions. Volunteer tutors, typically more advanced or particularly good students of all ethnic origins, provide feedback and solutions.

The system is embedded into an easy-to-use language reference support system (online translation, dictionary etc.) which supports conversation. The system also comes with real-time collaborative document editing and online chat.

Both tutors and students can bookmark dictionary entries and log key phrases, building a shared dictionary to advance language skills on both sides. This also provides a great opportunity for tutors to dip into a foreign language.

Suggested research and policy challenges

The provision of tutorship and knowledge resources at a distance and from peers is a good way of addressing learning barriers faced by IEM. Language is deemed to be very important for integration and employability. The combination of ICT and language learning is felt to be very effective for teaching, as each one complements and facilitates the other. The main points emerging from the experts' discussion on the learning storyline were:

-> Language is only one of the challenges for education

Experts highlighted that language is only one of the limitations IEM face. There are various other school difficulties and obstacles that are induced by other factors, which could be very complex, but which need to be taken into consideration when designing teaching programmes and policies for IEM. For example, IEM students face various problems understanding a foreign school culture and this often has an impact on the progress of their learning. In order to learn well, IEM pupils and students need specific tools to better understand the new school system they need to integrate in (and vice versa): school habitus of the host country, cultural codes and representation systems., A platform such as Nenuphar59 in France for instance is an adapted solution to these needs: it makes explicit what is implicit in the discourses, it clarifies codes of the local school systems, it scrutinizes problems of representation, and offers solutions to recurring problems with language.

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58 A survey of such experiences is provided by the eMigra project, http://www.e-migra.org/
59 www.educnet.education.fr/nenuphar
Online collaborative projects between classes working with IEM pupils in Europe would certainly raise both pupils' and teachers' awareness about the diversity of the processes at school in Europe.

-> Need to enhance instructor's learning of ICT and intercultural teaching

Research shows that it is often the case that teachers are reluctant to use ICT while teaching because they feel intimidated by their students, who are often more knowledgeable and faster in learning new technologies. Accordingly, initiatives which enable tutors to support and learn from each other are needed. Teachers are more likely to experiment with new technology outside the classroom, as insufficient knowledge in using ICT could have a significant impact on their role in the class.60

Balanced personal development and successful integration of IEM in the host country also require the recognition of the diversity of their identities. Adapted platforms could help teachers work together with both IEM and native pupils on this diversity: they could improve the knowledge of the culture of the IEM’s countries of origin and explain the reasons for migrations (and conversely, of course, becoming more familiar with the culture of the host country). In this respect, Exil Club61 in Germany and Atlas de la Diversidad62 in Spain are two interesting examples to build upon. Future platforms could certainly make a better use of new exchange and posting tools for videos, images, sounds and texts.

-> The challenge of digital and economic divides

Broadband access and basic digital literacy are crucial for exploiting IT-based educational opportunities. It is important that their availability among IEM should not be taken for granted. Thus, the idea that IEM communities are confident in using ICT has been challenged by various experts. The majority of immigrants are still under the conditions of digital divides, mainly because of low income and education. It is suggested that the degree of ICT confidence amongst IEM be investigated. Huge differences exist between IEM with basic skills of ICT and others with a full spectrum of digital literacy.

-> The potential of informal learning

While formal school ICT-supported education is important, only legal immigrants can benefit from such education practices. There is a great need for less formal education, where non-formal tutors can play a role and where the division between ICT for learning and ICT for leisure can be bridged. The use of social computing shows that many children and youngsters are willing to learn new technology, if the objective of learning a new skill can be beneficial for other important aspects of their lives, such as socialising with friends, gaming and dating. These applications are more related to leisure than to formal learning subjects.

More research is needed to identify which social computing sites IEM use, how and why, so that their learning needs can be better understood.

-> Final Recommendations

There is no doubt that ICT-enabled learning practices are important instruments in today's education. However, how such practices can give added value to specific IEM requires further research.

61 www.exil-club.de
62 www.atlasdeladiversidad.net
It has also been highlighted that any eLearning opportunities should be accompanied by local, neighbourhood-based physical encounter and access support arrangements. The Digital Playground experience in Netherlands, and Ferlander's account of a similar Swedish experience, provide convincing supporting evidence for this point.  

5.3 Employment and access to capital

In this section, two specific problems in work and business were identified: namely discrimination in the labour market and work place and difficulties in accessing banking services.

As mentioned before, most IEM face various difficulties in terms of labour market integration. In countries like Belgium, France and Sweden unemployment among 15-24 year old foreign-born people is twice as high as it is in the same age group of the native-born population (see footnote 16). Native-born children of immigrants, the so-called 'second generation', also suffer in some countries from labour-market integration problems. This has to do partly with educational outcomes. Having been born and raised in the host country, it would be expected that they would have similar outcomes to natives, at least similar to those who have a comparable socio-economic background. But this is generally not the case, as the OECD’s Programme for International Student Assessment (PISA) has shown, when the skills of 15 year old second-generation immigrants are compared with their native counterparts. 64 Difficulties vary from country to country and across IEM groups. Poor language proficiency, limited attendance to early educational services and limited participation in vocational training and apprenticeship schemes are also some other common factors.

Research shows that the majority of both regular jobs and apprenticeships are filled through contacts with friends or relatives. While foreign-born immigrants may be at a disadvantage in this respect, second-generation IEM, in theory, should not face this problem. However, their networks with respect to employers may be more oriented towards enterprises that are run by people of the same ethnic background, and, at least in some countries, enterprises which are run by foreigners have been found to offer less vocational training (see footnote 58).

Besides, even for given educational levels, children of immigrants often have more difficulties in obtaining employment. In France, for instance, only 11% of employers treated the candidates on an equal basis, while in 89% of the cases discrimination occurred 4 out of 5 times in favour of the person of French-origin (see footnote 58).

In most countries, employers do not seem to put much trust in foreign educational qualifications and work experience, which represents a serious problem especially for new immigrants. Self-employment and small business start-up is an important and frequent option followed by IEM to overcome structural obstacles in the labour market, particularly in some countries. A large, nation-wide survey in Germany of more than 40,000 individuals showed that migrants are twice as inclined as natives to found new enterprises. However, it has also been noted that the failure rate of these new start-ups seems to be higher than that of natives (see footnote 17).

The renewed drive of migration for employment in Europe and the growing number of skilled immigrants are likely to make a positive contribution to economic activities directly related with  

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64 http://www.pisa.oecd.org/pages/0,2987,en_32252351_32235731_1_1_1_1_1,00.html
65 The trial used a group of young men and women, 20-25 years old, with matching characteristics in pair combinations (education titles, place of living and other factors which might affect recruitment), except for their names, which were purposely chosen to suggest a Subsaharian African, Maghreb or traditional French family origin. Cediey et F. Foroni (ISM-CORUM) Les Discriminations à raison de « l’origine » dans les embauches en France. Une enquête nationale par tests de discrimination selon la méthode du BIT. Genève, Bureau international du Travail, 2007
information society domains. The extreme case here is the role that immigrants (especially Indian and Chinese) have been playing in the development of the US ICT industry. Despite the adoption of government schemes (mainly in Scandinavia, Netherlands and the UK) to encourage the participation of IEM in the information society labour force and the introduction of fast-track work permits for IT workers from overseas (e.g. the Green Card example in Germany), not much is known yet about their effects and about this topic in general in the European context.

Storyline Line:  Protecting minority rights, combating discrimination

A female immigrant worker faces race-related bullying at the workplace. A women's group, that employs a handful of publicly-funded and ICT-savvy outreach workers of the same immigrant ethnicity, runs a basic ICT and Internet skills programme into which this woman has enrolled. The outreach workers direct her to some online resources in her own language provided by the public anti-discrimination authority of her host country. Online she also finds links to self-help group discussion relating to similar issues in her language and also to a network of advanced law students and lawyers that provide a first point of call for legal advice and volunteer part of their time to help employees from ethnic minorities.

In the next storyline, the experts explored the notion of social lending. This old practice with different names in different parts of the world (Tontine in France) is still much practiced within ethnic communities and other groups which for various reasons are excluded from the credit/banking systems. The Internet and social computing development are opening up a new perspective on this traditional method, because they allow the lender to reduce his risks significantly by spreading money over large numbers of borrowers, and because they increase the number of potential lenders, allowing the borrower access to credit (apparently) at a lower cost. The reason for the recent success of P2P lending has been defined as follows: "traditional banks give credit only to people with an excellent solvency profile; cyberbanks on the contrary lend to borrowers with good or even mediocre profiles. And the average default on repayment has been lower than the bank-industry, so far. How do they achieve this? Emulating auction sites like eBay, the borrowers and lenders assign scores to each other. Thus each participant has a strong incentive to uphold his commitment in order to keep a good score and to continue being part of the system".

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66 The demand for information society technology skills is foreseen by Fistera to influence the employment levels for currently less prominent workers communities such as immigrants, ethnic citizens and women. Refer to the JRC/IPTS report 'Key factors driving the future Information Society in the European Research Area - Synthesis Report on the Fistera Thematic Network Study' - September 2004, available at http://www.jrc.es/publications/pub.cfm?id=1204

67 A recent study on this topic concludes that immigrants have become a significant driving force in the creation of new high tech businesses: 25.3% of the engineering and technology companies started in the U.S. from 1995 to 2005 have at least one foreign-born key founder ('America’s New Immigrant Entrepreneurs' jointly produced by the Master of Engineering Management Program, Duke University and the School of Information, U.C. Berkeley, January 2007).

68 This is also influenced by credit rates regulations. For instance, In France, interest rates compensating risks cannot go over the usury rate limit, as defined by the State (for amortizable consumption loans: 8.93% effective rate for a sum over 1.524 euros). This rate is a strong impediment for banks that might think of lending (at a higher rate to cover higher risk) to atypical borrowers such as students with no banking history, independent workers or small entrepreneurs with irregular revenues. According to a study from the French Senate, roughly 15% of the population fails to qualify for credit because of this regulation on the usury rate. Providing credit to this fringe of the population would be like going after the long tail of credit.

Storyline: Helping immigrant borrowers through social lending

A newly arrived immigrant could not meet his local bank's demand for property as a guarantee to back up a loan request. This money was needed to start a small business, and buy a house. IST-empowered social lending came to his help. Social lending has been moved onto the Internet by online community initiatives such as Zopa.com and Prosper.com. It uses collective reputation to assess the credit score of borrowers, and put lenders in direct contact with borrowers. Ethnic-based sub-communities have emerged within the broader community, taking advantage of specific, often tacit knowledge about the credit worthiness of their members (entrepreneur and his/her partners), the activities they want to invest money in (e.g. trading specific goods from their home countries) and so on. This sharing of a broader common platform has also led to some mixed ventures (when someone from a different community spotted an interesting opportunity) and even innovative ones (blending of different cultural-specific factors, e.g. in ethnic food catering).

Suggested research and policy challenges

The main points emerging from the discussion of the above storylines, which were highlighted by the experts, are:

- According to research, the majority of ethnic minorities are highly motivated and high performing people, nevertheless, employment opportunities tend to be limited. Experts suggested that research is required to identify this large pool of IEM with high employment potential and to analyse how policies can support the mobilisation of these human resources for the benefit of the both the host country and the IEM themselves.

- The administrative process to apply for public funds is often too complex. As a result, most organisations or small bodies are reluctant to apply for such funds, as a great deal of time is lost dealing with bureaucratic issues. It has been pointed out that government initiatives could combat such problems. For instance, the compiling of a list of all the ongoing projects and initiatives would be highly useful, as it would enable different bodies to communicate, interact, provide assistance to each other and partner up for certain events and activities.

- Finally, providing pre-departure information and services could support labour market integration and provide different integration opportunities in various sectors.
Based on the discussions of the potential of ICT and social computing for social capital and IEM integration and the related opportunities and challenges, the experts provided a number of concrete suggestions for the EC to realise this potential:

**Deepening the understanding**

Research addressing different issues of ICT and IEM is needed. The following research areas were identified during the workshop:

- current access, skills and use of ICT, in particular social computing applications amongst IEM;
- how governments can utilise social computing applications for online public services dedicated to IEM and concerned actors and how they can play a role in promoting the positive implications of these applications through policies;
- state-of-the-art quantitative and qualitative research on current migration patterns, which is comparable across European countries, nationalities and different age groups;
- better understanding of IEM contexts and needs in the different migration stages;
- complementing the social capital approach with other categories of social science research, such as social cohesion, greater integration of IEM and greater contribution of IEM to economic and social life;
- pre-departure opportunities, their impact in facilitating migration processes and the role of governments in the provision of such opportunities;
- how to improve the mobilisation of highly skilled IEM;
- identifying new education models facilitated by ICT and the needs emerging from such models;
- how eLearning practices can provide added value to IEM
- study ongoing IEM projects through the use of living lab methods

**Fostering cooperation**

Experts suggested that more collaboration across different Directorates General within the Commission would be useful.

The Commission could also play a role in promoting public-private partnerships with a view to fostering cultural diversity and enabling co-development of quality standards between public and private bodies.

It has also been pointed out that international cooperation amongst public bodies should be enhanced, in order to exchange best practice and learn from it.

**Enhancing the role of intermediaries**

Third parties, intermediaries and NGOs, amongst others, are recognised to be key actors in the various processes of IEM integration - therefore:

- more efforts should be targeted toward enhancing this significant role in our societies;
- governments could play a decisive role by placing the right intermediaries (both formal and informal) in the appropriate step of the value chain between services and immigrants;
- more interaction between local government and minority representatives should be encouraged.
**Promotion of good practices**

The promotion of good practice has been highlighted as one of the major actions to be taken into account, namely:

- leveraging and sharing existing practice;
- enhancing visibility of successful projects and learning from experiences of bad practice;
- promoting best practice through awards;
- using social computing applications as a tool for promotion.

**Legislative action (from reinforcement to legislation)**

Experts pointed out the role of the EC in improving legislative action through:

- ensuring non-conflicting regulation between different inclusion directives and standards;
- promoting simpler government services and de-bureaucratisation of public services;
- encouraging transnational services, such as banking without borders;
- encouraging Member States and local governments to reserve funds for research on IEM inclusion at the local level.

**Strengthening the links between host and home countries**

Opportunities to strengthen through ICT the links between host and home countries (which IEM contribute to maintaining and creating) should be better understood and exploited for the benefit of all the parties involved.
ANNEX 1: WORKSHOP AGENDA

**Introduction**

09:00 – 10:10: The eInclusion initiatives of the EC (Paul Timmers DG INFSO) – 10 min

   The IPTS IS Unit and eInclusion research activities (Marcelino Cabrera, IPTS) – 10 min

   Key issues to discuss, objectives and method of the workshop (Stefano Kluzer, IPTS) – 30 min

   Roundtable presentation of participants – 20 min

**10:10 – 10:30: Coffee break**

**Part I: ICT, social capital and cultural diversity**

10:30 – 11:00: Migrants and inclusion: why social capital matters (Isidro Maya Jariego, University of Seville, Dept of Social Psychology) – 20 min + Q&A for 10 min

11:00 – 11:20: The potential of social computing applications (Romina Cachia, IPTS) – 20 min

11:20 – 12:30: Open discussion - 80 min

**12:30 – 13:30: Lunch break**

**Part II: Opportunities and challenges of ICT and social capital approach**

13:30 – 14:30: Presentation of storyline on education and learning – 5-10 min

   Open discussion and contribution of new ideas by the participants

14:30 – 15:30: Presentation of storyline on work and business – 5-10 min

   Open discussion and contribution of new ideas by the participants

15:30 – 16:30: Presentation of storyline on access to public services – 5-10 min

   Open discussion and contribution of new ideas by the participants

**16:30 – 16:45: Coffee break**

**Concluding session**

16:45 – 17:00: A reaction from the Tavistock overview of eInclusion initiatives in Europe – 15 min (Joe Cullen, Tavistock Inst.)

17:00 – 17:30: Future opportunities, research challenges and policy options
Abstract

This report presents the key results of an expert workshop jointly organized by the Information Society Unit at IPTS and DG Information Society and Media, Directorate H, eInclusion Unit, complemented by additional research. The objective of the workshop was to analyse the potential of ICT (in particular social computing) and social capital, for the social and economic integration and participation of Immigrants and Ethnic Minorities (IEM). This objective had been defined as a priority in the Riga Ministerial Declaration on eInclusion. The report also contains policy recommendations, based on the analysis presented, with a view to contributing to the preparation of the 2008 eInclusion Initiative.
The mission of the JRC is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies. As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union. Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.