

Using Information and Communication Technologies to promote Education and Employment Opportunities for Immigrants and Ethnic Minorities

POLICY BRIEF

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May 2010

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JRC 57947

Technical Note

Luxembourg: Publications Office of the European Union

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Preface

This policy brief has been prepared by the Institute for Prospective Technological Studies (IPTS) in collaboration with DG Education and Culture, Directorate A, Unit A1 (Lifelong Learning: contribution to the Lisbon process) and DG Information Society and Media, Directorate H, Unit H3 (ICT for Inclusion). It is based on results from two research areas: “ICT for Learning and Skills” and on “ICT for the socio-economic participation and integration of immigrants and ethnic minorities”. It summarizes key messages from recent IPTS research on ICT initiatives promoting the integration of immigrants and ethnic minorities into Education and Training, promoting social integration and facilitating employment opportunities.

More information on these research projects can be found at:

<http://is.jrc.ec.europa.eu/pages/EAP/eLearning.html> and

<http://is.jrc.ec.europa.eu/pages/EAP/eInclusion.html>.

The studies and results of the IPTS Information Society Unit can be found on the Unit website: <http://is.jrc.ec.europa.eu>.

1. Introduction

1.1. Immigrants and Ethnic Minorities in the EU

While immigration can significantly contribute to employment, growth and prosperity in Europe (European Commission 2008a), the integration of a growing immigrant population remains a long term challenge for Europe (European Commission 2009a). According to Eurostat data (2009), in 2008, 19.5 million third-country nationals were residing in the EU, 3.9% of the overall population. Net migration, ranging between 0.5 and 1 million per year for most of the 1990s, has increased to levels ranging between 1.5 and 2 million since 2002 and is the main factor accounting for EU demographic growth (European Commission 2007a).

Also, mobility among European Member States leads to increasing numbers of EU citizens living in other EU Member States. In 2008, 11.3 million EU citizens, i.e. 2.7% of the total EU27 population, were living in EU Member States that they were not nationals of. Thus, according to Eurostat estimates, more than 30 million people in total were living as foreigners in the EU27 in 2008. Furthermore, in many EU Member States, a significant number of citizens were born abroad and/or belong to ethnic minority groups which tend to be affected by similar economic and social disadvantages.

Responding to the importance and significance of (third-country) immigration, the European Council (2004) and Commission (2003; 2005a) called on the EU Member States to step up their efforts to integrate immigrants and encouraged them to develop comprehensive national integration strategies. The Hague Programme and the Common Basic Principles adopted by the European Council (2004a; 2004b) in November 2004 acknowledged the need for greater co-ordination of national integration policies and EU initiatives in the field of immigration and underlined the importance of a holistic approach to integration. A common framework, which aimed to integrate a wide range of EU policies, was set up and further developed (European Commission 2005a; 2007a) with mechanisms for monitoring policy developments and exchanging information and good practice (cf. European Commission, 2007b).

In launching the partnership for growth and jobs as a new start for the Lisbon strategy, the 2005 Spring European Council (2005) emphasized the importance of building a fully inclusive information society, based on the widespread use of information and communication technologies (ICT). The subsequent strategic policy framework “i2010: A European Information Society for Growth and Employment” (European Commission, 2005b) established digital inclusion as an EU strategic policy goal: everybody living in Europe, especially disadvantaged people, should have the opportunity to use ICT. Consequently, the 2006 Riga Ministerial Declaration on eInclusion¹ identified as one of its six main policy objectives the “promotion of cultural diversity with ICT” through “fostering pluralism, cultural identity and linguistic diversity in the digital space” and by “improving the possibilities for economic and social participation and integration, creativity and entrepreneurship of immigrants and minorities by stimulating their participation in the information society”.

The main objective of this policy brief is to outline different ways in which Information and Communication Technologies (ICT) can enhance, improve and complement mechanisms

¹ Ministerial Declaration approved unanimously on 11 June 2006, Riga, Latvia, available at: http://ec.europa.eu/information_society/events/ict_riga_2006/doc/declaration_riga.pdf.

fostering the social and economic integration and inclusion of Immigrants and Ethnic Minorities (IEM).²

1.2. Key Challenges to Integration in Education

The European Commission (2007a) emphasizes as key factors for a successful integration and social participation of immigrants into society, among others, the need to increase efforts in formal education, addressing the specific needs of immigrant children and youth at an early stage, to empower them to become active participants in society.

The impact of immigration on school education in particular is significant. PISA 2006 data show that at least 10% of the school population aged 15 (within the old Member States) was either born abroad or has both parents born in another country. This figure increases to almost 15% at the fourth grade of primary school (OECD, 2007). Furthermore, in some metropolitan areas the share of migrant pupils in public primary schools is substantially higher, approaching or exceeding 50% in, for example, Birmingham, Rotterdam and Brussels (European Commission 2008c). Education is key to ensuring that these pupils are equipped to become integrated, successful and productive citizens of their host country (European Commission, 2008b).

There is clear and consistent evidence that many children of migrants have lower levels of educational attainment than their peers (European Commission 2008b; 2008c). There are many different factors accounting for the current educational disadvantage – among them, most prominently, socio-economic conditions and language barriers. However, the performance of migrant students of the same origin varies between European countries, even where patterns of migration are similar (OECD 2006), indicating that policies and educational approaches can have an impact on educational attainment (European Commission 2008b).

Responding to these findings, the European Commission (2008b) published a Green Paper on “Migration and Mobility: Challenges and Opportunities for EU Education Systems”, to open the debate on how education policies may better address the challenges posed by immigration and internal EU mobility flows. The Green Paper is part of a package of measures accompanying the Renewed Social Agenda, which intends to reinforce access, opportunities and solidarity among all EU citizens (European Commission 2008a). The Green Paper and the contributions to the ensuing public consultation (European Commission 2009b)³ emphasized a need for schools to be inclusive and multicultural, to update the skills and competencies of teachers and to strengthen contacts with parents and communities. The European Council (2009) conclusions on the education of children with a migrant background called upon Member States to take appropriate measures to increase the permeability of education pathways and remove barriers within school systems.

1.3. The Role of ICT in Facilitating Social and Economic Integration

Recent research undertaken at IPTS⁴ shows that Information and Communication Technologies (ICT) can effectively support the social and economic integration of immigrants

² For the purposes of this policy brief, the terms “immigrants”, “migrants” and “immigrant and ethnic minorities (IEM)” will be used interchangeably, accounting for the fact that, while the latter term is more precise, the former is more commonly used, and is generally employed in a broader sense, also including ethnic minority groups and nationals from migrant backgrounds.

³ Cf. http://ec.europa.eu/dgs/education_culture/consult/migration_en.html; for a summary see European Commission 2009b.

⁴ IPTS (Institute for Prospective technological Studies) is one of 7 research institutes that make up the Joint Research Centre (JRC) of the European Commission.

and ethnic minorities. In particular, the fact that the internet has become a multilateral platform for knowledge exchange, which supports more dynamic and participative modes of interaction and enables vast resources of knowledge being set up and adapted to personal needs (cf. Ala-Mutka et al., 2009), yields many opportunities for social integration (Diminescu et al., 2010) and opens up new learning opportunities inside and outside formal Education and Training.⁵ These resources can also be successfully exploited to facilitate education, participation and employment opportunities for immigrants and ethnic minorities.⁶

This policy brief provides a short overview of the ways in which ICT can assist and promote the cultural and socio-economic integration of migrants by enhancing education and employment opportunities for IEM. It is based on the analysis of wide range of initiatives that illustrate the ways in which ICT can support, facilitate, enhance and complement broader inclusion and integration strategies. The cases presented here represent a careful selection of examples that are indicative and illustrative of the particular socioeconomic contexts where they take place. These cases exemplify a common or paradigmatic approach to integration, have been running for a number of years and have involved a substantial number of immigrants.

While evidence of the impact of ICT on integration exists, it is generally scarce because the research field of ICT for the integration of IEM is still relatively new, and there is a lack of commonly accepted frameworks of measurement. There is, therefore, a need for more systematized and longitudinal research in order to measure and assess the impact of the use of ICT on socio-economic integration of migrants. More research is also needed to assess scalability and replicability.

As becomes apparent in the following, ICT cannot and should not replace targeted inclusion strategies. Rather ICT can complement and enhance effective integration strategies. As argued in Chapter 2, ICT can facilitate and accelerate the social and cultural integration of immigrants, help migrants families to overcome the isolation they face on arrival, make relevant information available to immigrants in their mother tongue and support immigrant children and youth in defining their own identity at the crossroads of the different cultures they belong to.

ICT furthermore provide learning and training opportunities for adult migrants and ethnic minorities, fostering their language and cultural skills, fighting illiteracy, and training them in digital skills, thus promoting social integration. ICT make educational and vocational training accessible to youth and adult immigrants who are often disenfranchised from mainstream training opportunities. ICT tools help open up employment opportunities for immigrants and ethnic minorities by improving recruitment procedures and matching immigrants' professional profiles with employments needs (Chapter 3). However, in order to seize the opportunities offered by ICT, access to computers, basic digital skills and also digital competences need to be promoted.

Finally, by supplying more engaging learning materials better targeted to migrant pupils' needs, ICT can increase their motivation and participation in formal education, foster language, cultural and media skills, and thus improve their social integration and educational achievement. ICT can enhance teacher training and the development of teaching materials

⁵ Cf. Redecker, et al., 2009; Redecker, 2009; Ala-Mutka, 2010; Cullen et al., 2009.

⁶ Cf. Kluzer et al., 2008; Haché 2009; Diminescu et al., 2009; Diminescu et al., 2010.

which address the needs of immigrant pupils and facilitate the implementation of intercultural education in school curricula (Chapter 4).

2. Facilitating Social Integration

2.1. Facilitating the integration of the newly arrived

ICT facilitate and accelerate the social and cultural integration of newly arrived immigrants; help migrant families to overcome the isolation migrant they face on arrival; and make relevant information available to them.

ICT are invaluable tools for newly arrived immigrants as they can supply them with information and guidance in their mother tongue. Many European countries offer online information portals, often in different languages, that help immigrants understand legal and administrative procedures and also facilitate, for example, access to social and health services. Additionally, online networks and information portals, initiated among the members of certain ethnic groups, supply information, support and guidance.

In Denmark, the **FINFO** portal (www.finno.dk; Danish Library Centre for Integration; Denmark; since 1999) supplies immigrants with information and learning material on public services in 11 different languages.

Polonia.de (<http://h1435180.stratoserver.net/poloniade/home.php>; Germany; since 1995) is an ethno portal for Poles living in Germany, supplying tools for searching for information. It provides information about culture, society and business relevant to Poles living in Germany, interactive services (an internet forum etc.) and informs users about the bilateral relationship between Germany and Poland.

Stichting Maroc.nl (<http://www.maroc.nl/>; Netherlands; since 2002) is an innovative internet company providing a community environment incorporating discussion forums, newsmagazine, chat rooms, dating service, religious services, email services and other web based services. The audience of the community is (young) people in the age between 14 and 30 with a Moroccan, Mediterranean (Tunisians, Algerians, Libyans, Egyptians) and/or Islamic background living in the Netherlands and Belgium.

TGD, the online communication channel of the Turkish Community in Germany (<http://www.tgd.de/>; Germany; since 1995) supports the shaping of public opinion, by conducting panel discussions, commenting on current political affairs in Germany and so on. TGD also promotes specific educational and training projects and other initiatives.

2.2. Empowerment

ICT help immigrants to explore their cultural heritage and define their own identity at the crossroads of the different cultures they belong to.

ICT support the development of networks and forums that help immigrants define their cultural identity within their host country, empowering them to become active citizens. Especially for young immigrants, ICT provide resources and networks, that allow them to discover and develop their cultural origins, to take on what has become their second identity as part of the host society and to express themselves as vital members of their host country's society. ICT promote the exchange of intercultural experiences and increase self-confidence by giving immigrants a voice and making them heard.

“Rete G2 seconde generazioni” (<http://www.secondegenerazioni.it/>; Italy; since 2005) is a social network, created by young people of foreign origin, emphasizing the need of expression among young immigrants and ethnic minorities. The project employs blogs and wikis to promote collaborative writing, a social network site supporting different languages, and facilities for sharing pictures and videos. It aims at encouraging immigrant (and native) students to produce and share stories, practice different creative and language skills, and collaborate with others, promoting cultural exchange and self expression.

The **XénoCLiPse** cooperation project (<http://www.xenoclipse.net/>; pan-European; since 2002) between Norway, Belgium, Spain and Germany encourages ethnic minorities to produce and distribute digital and media content, promoting media literacy, and, at the same time, improving the visibility of minorities in the media, and empowering minorities to become media agents.

Roots&Routes TV (<http://rootsnroutes.tv/>; Germany; since 2007) is a web-TV targeted at young people with migrant origin. It started in six German cities, and is currently extended to Finland, France, Greece, Hungary, Italy, the Netherlands, Spain, Sweden and the UK. Young people with different cultural roots get together in workshops and young journalist groups, producing creative products and a web-TV magazine on urban culture and cultural diversity in their everyday life.

The **Bordergames** initiative (<http://blog.sindominio.net/blog/bordergames;> <http://jovesteb.org/ravalgames/weblog>, Spain, since 2002) offers workshops that give young people of migrant background the opportunity to learn 3D animation, video-editing, Photoshop, script writing, photography, drawing and social skills including team building, self-respect and organisation.

3. Upgrading Skills

3.1. Acquisition of language and cultural skills

ICT provide learning and training opportunities for immigrants, which foster their language and cultural skills, thus facilitating social and economic integration.

Employment rates for immigrants are low, particularly among those who have low levels of education or have recently arrived, and women (European Commission, 2009b). Language acquisition is of paramount importance for the successful social and economic integration of immigrants into the host society. While migrant children in general have access to schooling, adult immigrants are more difficult to reach with programmes that foster their language, intercultural and occupational skills. ICT are particularly suited to overcoming initial language barriers, promoting at the same time cultural integration and providing immigrants with basic skills necessary for their integration into the labour market. ICT alleviate the difficulties encountered in engaging adult migrants in learning by offering personalised training opportunities, tailored to their individual needs.

ITpreneurs (<http://www.itpreneurs.nl>; Rotterdam, NL; since 2008) develops training tools to prepare immigrants for the Dutch integration exams, mandatory for attaining residence permits. A blended course combines e-learning, television, classroom, practical assignments, coaching and an Exam Preparation Guide. In a 3D virtual neighbourhood, for example, students are placed in situations where they can practice their language skills, start a dialogue with the residents of the neighbourhood, visit a virtual bank, school, library, local government, etc.

Alane Newsreader (<http://www.edia.nl>; Amsterdam, NL; national; since 2007;) is a tool used in integration classes for newly arrived immigrants, which analyses newsfeeds to select news articles fitted to the individual learners' profile, taking into account language level, personal details, such as knowledge of other languages, and preferences and interests.

NALDIC, the National Association for Language Development in the Curriculum, (<http://www.naldic.org.uk/>; UK) releases weekly video broadcasts through its YouTube channel (<http://www.youtube.com/user/NALDICvideo?gl=GB&hl=en-GB>) to support the learning and teaching of English as an Additional Language.

3.2. Fighting illiteracy

By providing accessible and appealing learning environments, ICT assist in fighting illiteracy, thus facilitating access to further lifelong learning opportunities.

Today, reading and writing are still basic skills that are critical not only for accessing any further training, but also for social and cultural integration. However, many immigrants have not had access to basic schooling in their home countries and therefore lack these fundamental skills. ICT facilitate the acquisition of literacy skills by providing multimedia environments that are easily understandable and accessible to people without reading and writing skills. These environments are adaptable to different levels of competence and appeal to an audience that is used to visual representations, so that possible barriers to learning can be overcome.

The **AutreMonde** project (<http://www.autremonde.org/>; Paris, France; since 2000) conducts a programme to eliminate illiteracy among the around 200 residents of four centres for immigrant workers living in Paris. The programme provides free access to computers, training on basic computer skills, and multimedia educational applications dedicated to the elimination of illiteracy. A “media library” supplies for educational support to the trainers.

3.3. Acquisition of ICT skills

ICT facilitate the social and economic participation of immigrants and ethnic minorities. However, to reap these benefits, access to computers, basic digital skills and digital competence among immigrant cohorts need to be promoted.

Over the last few years, ICT have become an integral part of daily life in European societies. Therefore, to integrate immigrants successfully, it is vital to foster their digital skills and make ICT available and accessible to them. At the same time, ICT are enablers for social integration. Nowadays, online social networks, employment portals, and a number of other job-related services increase access to employment opportunities. However, to benefit from these opportunities, access to ICT as well as basic ICT skills have to be promoted. Initiatives targeted at increasing immigrants’ ICT skills can have a positive effect not only on their digital skills, but also on cultural integration, social participation and employment.

The **DO IT!** Initiative (<http://www.interface3.be/>; Belgium; since 2006) offer IT training to unemployed women between the ages of 25 and 49, and particularly the non-European residents, who have a much higher unemployment rate than their European counterparts. The project trained 5,000 women in 2006 and provided 4,500 more people with IT skills training in 2007.

Fundación Bip Bip (<http://www.fundacionbip-bip.org/>; Spain; since 2003) supports access to ICT for marginalised groups – among them immigrants and ethnic minorities. Additionally the Bip Bip Classroom is a space equipped with computers with connection to Internet, from which people without resources or in risk of exclusion receive education for their social integration and labour insertion.

The **Belgium Telenet Foundation** (<http://www.paluche.org/education/asbl-joseph-swinnen/index.htm>; <http://www.telenetfoundation.be/fr/le%20resultat%20map/premier-appel-a-projets/asbl-joseph-swinnen.html>; Belgium), aims to fight the digital divide by equipping in particular socially disadvantaged children with computer skills.

The **Bangladeshi Youth Organisation** (BYO) (<http://www.bym.org.uk/splash.asp>; UK) supports an ICT initiative in the Manningham area of Bradford (UK) targeted at Bangladeshi youth (early school leavers) and newly arrived Bangladeshi adults, with the aim to improve language, communication and IT skills, preparing young people for the workplace.

4. Fostering Employment Opportunities

4.1. Better matching of immigrants' profiles with employment needs

ICT tools assist in opening up employment opportunities for immigrants and ethnic minorities by improving recruitment procedures and matching immigrants' professional profiles with employments needs.

Having a job is probably the best safeguard against poverty and exclusion (European Commission 2009b). However, often immigrants' qualifications, professional experiences, skills and competences are not recognized in their host country. Language barriers make it difficult for them to communicate their expertise; prevailing prejudices prevent them from realising their potential. ICT can be used to assess, evaluate and demonstrate expertise, by, for example, allowing immigrants to set up portfolios illustrating their competence profile, including language, intercultural and vocational skills, thus supplementing and complementing officially recognised qualifications. ICT can also facilitate recruitment procedures and improve contact with potential employers.

KEN ("Kompetenz-Erfassungs-Notebook") (<http://demo.kompetenz-erfassungs-notebook.de/>; <http://www.bagarbeit.de>; (User: testnutzer, login: tester); Germany; regional; since 2008;) is a tool developed to allow to improve career opportunities for migrants whose qualifications and professional profile are not officially recognized in Germany. This online notebook allows users to record competences according to three categories: "activities", "workbook" and "curriculum vitae". Occupational qualifications, skills and competences are assessed (self-assessment and external assessment). Key users are employment and qualification companies and their participants (especially migrants).

NQOT ("Nos Quartiers ont des Talents"; <http://www.nosquartiers-talents.com/>; France; since 2005) is an initiative launched by the French Confederation of Business Enterprises (MEDEF) which encourages young university graduates from disadvantaged areas, many of them from ethnic minorities groups, to register to a database to facilitate their recruitment by companies which subscribe to the initiative. By now, 2500 young talents have been recruited and the initiative is being rolled out to Lyon, Marseille, Toulouse and Lille, targeting 1200 to 1500 additional graduates.

The **Arbete** initiative of the Municipality of Stockholm (www.stockholm.se/Arbete; Sweden; since 2000) in close collaboration with potential employers, trains immigrants on specific job profiles, using, among others, mobile phones to teach the necessary language, vocational and cultural skills. In 7 years, 1000 immigrants have been enabled to move from welfare to supporting themselves.

4.2. Qualifying immigrants for ICT jobs

Up-skilling immigrants on specific ICT competences needed by local industry employers can contribute to both their economic integration and to local economic development.

Upgrading skills and at the same time ensuring a better match between the supply of skills and labour market demand is a key objective of the European New Skills for New Jobs policy (European Commission, 2008e). In addition, net job creation projections by Cedefop (2008) estimate that up to 2020, significant additional jobs could be created in high-skilled non-manual occupations, such as IT-related jobs.

To take full advantage of the strategic and operational opportunities offered by ICT solutions, it is clear that more and better qualified ICT labour is needed (cf. Ala-Mutka, 2009). Consequently, a number of initiatives across Europe aim to provide groups at risk of exclusion – including migrants and unemployed – with the precise ICT skills needed by industry. These initiatives illustrate that, if collaboration with local employers is sought, the socio-economic integration of immigrants and the economic development and competitiveness of local industry can mutually be reinforced.

Studio+ (<http://vitalregeneration.org/our-projects/studio-plus>; UK; since 2007) captures young people's interest through the 'hooks' of music and event management, using industry-standard equipment and high quality learning facilities. The programme provides a bridge for 14 to 19 year olds who have not achieved qualifications, to enable them to engage with ongoing training and employment opportunities. Studio+ builds the literacy and numeracy skills of young people who are not in education, employment or training (NEET), and effectively reconnects them to mainstream education or work.

Get-IT ("Graduate Entrepreneurship Training through IT"; <http://www.graduate-training-through-it.net/>; International; since 2007) is one of HP's flagship social investment initiatives and helps young unemployed people and graduates – aged 16 to 25 – acquire the business and IT skills to enter professional life or to create their own businesses. The GET-IT training initiative operates in 30 countries in Europe, the Middle East and Africa and comprises a network of 100 GET-IT training centres. GET-IT's mission is to help young people master the dynamics of using information technology in very small businesses.

FIT ("Fast Track to IT"; <http://www.fit.ie/>; Ireland; since 1999) is a unique industry initiative involving major local and international companies who are actively committed to the integration of marginalised job seekers into the workforce through the acquisition or marketable ICT skills. To this end all FIT Programmes, which have been developed by industry (currently 24 ICT curricula, covering technical skills and personal/professional development), are run in collaboration with existing education and training provision. FIT provides ongoing support to the graduates of its programmes and views its primary objective as not just the attainment of a job but the commencement of a career.

5. Promoting Integration in School Education

5.1. Improved learning opportunities for immigrant children

By supplying more engaging learning materials better targeted to migrant pupils' needs, ICT increase motivation and participation, foster language, cultural and media skills, and thus improve the social integration and educational achievement of migrant children.

To improve the educational performance of migrant children, schools need to focus more on the individual needs of pupils and provide more personalised learning pathways (European Commission 2008b). ICT, by offering a variety and combination of different media representations, are versatile tools for personalising learning pathways and making a variety and diversity of learning materials available which can be dynamically adapted to the level of competences and/or individual preferences and learning needs. ICT applications can be used to teach, train and assess students without recourse to language, using iconographic representations or translations into their mother tongue. ICT provide multimedia environments that tend to be especially appealing and interesting to children and young people, encouraging immigrant pupils to learn in an active and engaging way. Furthermore, ICT support the integration process of migrant pupils, by providing resources and programmes that facilitate foreign language acquisition, first language usage and intercultural learning.

The **IBM KidSmart Early Learning Program** (www.kidsmartearlylearning.org; <http://www.ibm.com/ibm/ibmgives/downloads/KSCaseStudies2009.pdf>; worldwide; since 2008) is an initiative led by IBM targeted at pre-school children with special educational needs – including IEM and other socially disadvantaged children – with the aim to raise educational achievement. In 2008, 10,000 KidSmart units were donated to disadvantaged communities in 30 countries worldwide reaching more than 500,000 children; and 20,000 early education practitioners received training in teaching. The corresponding website includes a guide for parents to encourage early learning at home and a section for pre-school teachers that details how they can best use technology to support learning in their classrooms.

The **CH@VE** project (<http://internetovekluby.cz>; Prague, Czech Republic; 2006-2008) establishes a network of Internet clubs in 14 primary schools and 1 community centre, targeted in particular at children of the Roma community and their teachers. The project employed games and courses to stimulate pupils' creativity and interpersonal skills, develop their e-skills, and teach them how to use e-learning programmes.

5.2. Supporting Teachers of Immigrant Children

ICT foster teacher training and the development of teaching materials which address the needs of immigrant pupils.

To accommodate the wider range of mother tongues, cultural perspectives and attainments in the classrooms, new, adapted teaching skills are needed. Teachers need training and professional development on how to deal with diversity and motivate disadvantaged children and on how to teach the host language as a second language (European Commission 2008b). ICT are an invaluable asset in making such training opportunities available to teachers. The internet allows teachers to have easy access to teaching and learning materials for immigrant pupils and enables them to access training resources enhancing their teaching skills. Teachers can connect and mix different online learning and teaching resources and thus build up

extensive personalised knowledge repositories. Additionally, online social networks among teachers support the exchange of knowledge and good practice on the integration and training of immigrant children.

The **Aula Intercultural** initiative (<http://www.aulaintercultural.org/>; Spain; since 2003) offers a rich source of teaching materials and information for teachers at primary and secondary schools with immigrant pupils. It provides (a) best practices of how to manage intercultural relationships at school, (b) networking opportunities through an e-mail distribution list, and (c) examples of how to address cultural diversity at school. Resources support in particular second language acquisition and intercultural communication.

EMA (“Online Support for Ethnic Minority Achievement”) (<http://www.emaonline.org.uk>; UK; since 1999) provides an online resource base mainly for ethnic minority teachers, but also for pupils and parents. The teaching and learning resources aim to increase educational achievement for children and young people with English as an additional language and those from minority ethnic backgrounds.

The Leonardo da Vinci initiative “Cultural Awareness in Technical and Industrial Training Project” (**CATIT**) (http://www.adulta.fi/catit/catit_sivut/english/index_eng.htm; pan-European; 2006-2007), aims to improve vocational training for immigrants and ethnic minorities by supporting the training of teachers and tutors. The tailored online course and training materials enable tutors of specialized technical subjects to use effective tools and methods for the meaningful professional development of immigrants.

Innocent (www.innocent-project.de; pan-European; 2004-2007) was a Comenius project focusing on teacher training, in particular, on developing skills to manage intercultural conflicts at school; to eliminate prejudices and create a multicultural spirit amongst teachers; to propose and disseminate pedagogic strategies and methodologies to help integration; and to encourage mobility of teachers. Innocent produced a 32 hours web-based training course as well as a handbook and a CDROM for intensive training courses for teachers.

Learning Migration (www.learningmigration.com; pan-European; 2005-2008) was a Comenius web-based network on intercultural education with partners from schools and teacher training institutions, from educational authorities, NGOs, and from didactic research institutions. The project aimed at incorporating successful experiences in the field of mentoring, youth activities, adult education, etc., into the day-to-day teaching of multicultural classrooms.

5.3. Promoting Intercultural Education

ICT facilitate the implementation of intercultural education in school curricula.

To improve the social integration and inclusion of migrants, it is necessary not only to accommodate a wider range of mother tongues, cultural perspectives and attainments in the classroom; but also to include intercultural education in curricula and to foster all students’ intercultural competences (European Commission 2008b; 2009b). ICT tools are a very versatile means of making learning and teaching material on intercultural themes generally and openly available. Teachers and education institutions can be directly addressed and assisted in including intercultural education in their curriculum.

The **Race Equality** initiative (<http://www.ltscotland.org.uk/raceequality/schoolmaterials/index.asp>; Glasgow, Scotland; since 2001; formerly: “Antiracist Toolkit”), provides teachers with an online toolkit to improve anti-racist education. The material includes examples of good practice, exercises for staff development and electronic links to practical ideas about including racial equality in approaches to learning and teaching.

The **iRespect** website (<http://www.irespect.net/index.htm>; Gloucestershire, UK; since 2001) is a resource provided by the Gloucestershire Race Equality and Diversity Service to promote positive tolerance, cultural diversity and active citizenship. The website provides lesson plans on diversity themes and Web 2.0 functionalities for sharing and developing stories (including multi-lingual “talking books”).

The **BE-ME** initiative (<http://www.be-me.org/>; Wolverhampton, UK; since 2002) supports a website with authentic audio/video material and on-line learning packages to bring the experiences and history of black and ethnic minorities to the classroom.

The **Didactic guide for training to ICT with a gender and intercultural perspective** (http://www.surt.org/perbaixar/guiadinas_sin.pdf; Spain; since 2008) is an educational guide for training in ICT from a gender and intercultural perspective, initiated in 2008 by Donestech. Besides the preparation of the guide, many training actions for educators (“dynamizadores”) of Public Internet Access Points have been carried out in Madrid and Barcelona. This didactic guide is available under a Creative Commons Attribution; <http://creativecommons.org/licenses/by-sa/2.5>.

La Maleta Intercultural (<http://www.sebyc.com/iesrch/intercultural/index.htm>; pan-European; since 2001) was a Comenius project that developed a set of pedagogical resources organized per didactical units, to meet the teachers requirements in addressing intercultural challenges and topics. The outcomes of the project are downloadable online in Spanish and in English.

The network **ACODDEN** (<http://www.ceji.org/acodden/>; pan-European; since 2006), financed through the Socrates Accompanying Measures, built an inventory of existing policies and practice and published guidelines in the field of citizenship education for diversity in formal secondary education across Europe. All the material is downloadable from the website in English.

6. Key Messages

- **ICT can complement and support integration strategies.** As initiatives all over Europe show, ICT can contribute to facilitating the social and cultural integration of immigrants; facilitate skilling; improve education and training opportunities for migrant children and adults; and assist in opening up employment opportunities.
- **Access to ICT and to opportunities to develop ICT skills and digital competence** are pre-requisites for taking full advantage of the potential offered by ICT applications. ICT skills and digital competences are key elements to accessing education, civic engagement and employment opportunities in European societies that are increasingly becoming internet and media based. Therefore, **general ICT access and digital literacy policies continue to be vital** and it should be ensured that they address immigrants and ethnic minorities as specific target groups.
- **Policies which aim to support cultural diversity and integrate immigrants** should:
 - **consider the potential of ICT-based applications** as an additional policy component to support, facilitate, and enhance the implementation of broad integration strategies;
 - **encourage an integrated and horizontal exchange across policy fields** (immigration integration, education, employment, information society, etc) **on good practices** in the use of ICT applications which aim to support immigrant integration. In particular: exchange on guidelines for implementation, factors for success and failure, impact assessment, and scalability and replicability conditions;
 - **take into account good practices in ICT-based applications in place.** Their impact should be analysed, their challenges as regards financial sustainability considered, and their scalability and replicability in other contexts supported.

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European Commission

JRC57947 – Joint Research Centre – Institute for Prospective Technological Studies

Title: Using Information and Communication Technologies to Promote Education and Employment Opportunities for Immigrants and Ethnic Minorities

Authors: Christine Redecker, Alexandra Haché and Clara Centeno

Luxembourg: Publications Office of the European Union

2010

JRC Technical Notes

Abstract

This report gives examples of various initiatives all over Europe illustrating that Information and Communication Technologies (ICT) contribute to the social and cultural integration of immigrants and ethnic minorities (IEM); facilitate the successful integration of migrant children and youth into Education and Training; and enhance vocational training and employment opportunities.

ICT provide learning and training opportunities for adult migrants and ethnic minorities, fostering their language and cultural skills, fighting illiteracy, and training digital skills, thus promoting social integration. ICT make educational and vocational training accessible to youth and adult immigrants who are often disenfranchised from mainstream training opportunities. ICT tools assist in opening up employment opportunities for immigrants and ethnic minorities by improving recruitment procedures and matching immigrants' professional profiles with employments needs. However, to seize the opportunities offered by ICT, access to computers and basic digital skills as well as digital competence need to be promoted.

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