

# DELIVERABLE REPORT

## D2.1

### “Immigration and ICT in Europe”

#### MASELTOV

Mobile Assistance for Social Inclusion and Empowerment of Immigrants with  
Persuasive Learning Technologies and Social Network Services

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## EXECUTIVE SUMMARY

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As requested by the MASELTOV project's work plan, this report is the result of one of the first project tasks (T2.1 'Immigration and ICT in Europe') which had two aims. First, to provide the project's partners with relevant background knowledge and information about previous experiences and on-going activities in Europe on ICT projects aiming to support immigrants' integration. The information gathering process should identify critical aspects, interesting solutions and their shortcomings. The second aim was to connect with the main projects and actors working in this area in Europe, in order to get inspiration, identify potential for collaboration and set MASELTOV's deployment firmly in the European context. This was to be done during the information gathering process itself and through the organisation of an ad hoc workshop where key interlocutors would be invited.

The research task and the final report have thus been conceived as a source of useful information and inspiration for the MASELTOV partners in the initial stage of the project.

This report focuses primarily on the interventions in European countries which use ICT, specifically mobile solutions, to address immigrants' integration. These are framed in the European policy context (as many interventions are supported by European programmes) and are set on the background of the (limited) quantitative evidence which tries to measure ICT diffusion and related digital exclusion among immigrants in Europe. Given this content, this report is complementary to the other MASELTOV report, also prepared by UOC (Ros & Gordano 2013), which looks at immigrants' use of mobile phones and the Internet from a sociological perspective that takes into account immigrants' point of view, drawing mostly from existing qualitative studies.

The content of this report has been produced on the basis of: a) desk activities (review of existing scientific and grey literature); b) Internet navigation (most ICT projects have a website and some EU portals give access to 'good practice' databases); c) phone interviews and mail exchanges with project managers and staff; and d) presentations and discussions held at an experts workshop. As envisaged by the work plan, preliminary findings from the data gathering process have been illustrated and discussed at a workshop –held in Barcelona on April 26-27, 2012- with academic scholars and researchers, practitioners of technology and integration projects, companies and people involved in policy making. These were invited to present their experiences and share their knowledge and views on opportunities and practical approaches to better exploit mobile technologies for the integration of immigrants in Europe.

The report is structured as follows. Chapter 1 provides a quick overview of the EU policy context with respect to immigrants' integration and the ensuing digital inclusion measures which have ultimately led –amongst other things- to the approval and funding of the MASELTOV project itself.

Chapter 2 summarizes the limited available quantitative evidence on the diffusion and use of ICT among immigrants in Europe. This is drawn from a few past studies done in some European countries on specific immigrant groups and from the query of Eurostat's database on the *Community survey on ICT usage in households and by individuals* which has recently made available results about non-EU nationals and non-EU born individuals.

Chapter 3 is the core of the report, with short presentations of about 30 initiatives and projects concerning mobile applications addressing immigrants in the three priority domains of the MASELTOV project: learning in general and of the host country (second) language (L2);

information assistance and other services, especially for labour market integration; social participation and inclusion.

Chapter 4 summarizes the findings on benefits, obstacles and possible solutions drawn from Chapter 3 experiences and others, mostly focussing on the use of mobiles for learning in general and specifically L2 learning. This is a key priority of integration measures in Europe today; it is a crucial factor for improving immigrants' labour market participation; and it is also the only area where, at the moment, there are enough evaluations of experiences and reflections to provide significant results.

Chapter 5 provides conclusions drawn by putting together and reading through the main findings of the other chapters.

Appendix 1 contains three contributions on some initiatives briefly illustrated in Chapter 3 and presented at the Barcelona workshop for which the authors accepted to provide richer descriptions and reflections included in this report. The first contribution concerns the MoLeNet programme in the U.K. and focuses primarily on the educational potential of mobile learning for ESOL learners (English for speakers of other languages). The second concerns three European projects which involved the University of Florence in Italy and looks at the learning and social inclusion potential of mobile phones and other devices. The third presents several projects carried out by VIFIN (Resource Centre for Integration) in Denmark where mobile phones and QR-codes were used, again for learning and to support everyday life and work tasks.

Appendix 2 gives information about the aims, agenda and participants of the Barcelona workshop.



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## 1. KEY INTEGRATION CHALLENGES IN EUROPE AND ICT OPPORTUNITIES

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### 1.1 INTEGRATION PRIORITIES IN EUROPE

Integration is undoubtedly a strongly contested notion with a complex history. Two recent documents which provide an effective and challenging discussion of this notion from a grassroots rather than an academic or institutional perspective are ENAR (2011) and MRCF (2012). Without getting into this discussion, we just briefly mention two descriptions of integration drawn from these reports which we believe are effective in representing the contrasting views in the broader debate.

The first description views integration as assimilation:

*“For some politicians in the EU Member States, migrant integration means quite literally that newcomers adopt the same views and outlooks and behave in the same way as long settled citizens. When integration is allowed to centre on these issues, immigrants are placed at an obvious disadvantage. Attention is drawn to the fact that they are sometimes not proficient in the national language, or speak it with a foreign accent. There is little emphasis on the fact that, even when they do speak the receiving society language, a more fundamental unfairness is revealed by inequalities in employment, housing and health outcomes ...” (ENAR, 2011, p.5)*

The second description, based on what immigrants and refugees say about it, views integration as a “journey to belong”:

*In human experience, integration translates into how safe people feel in a place, whether they are able to meet their basic needs for food and shelter, and perhaps how many options they have in terms of education and employment. Integration is about whether people can live with dignity and respect, on an equal footing with other members of their community. Integration is also about adjusting to a new environment, new rules, and new codes of behaviour. (MRCF, 2012, p.10)*

Since the MASELTOV project will be to some extent and in a unusual way -given its primarily technological content and players- an integration project, ENAR Toolkit’s conclusion on this also looks worth quoting:

*“integration projects should be viewed as a learning process in which we work to find out more about the potential of our local communities to adapt to diversity and interculturalism, uncover the evidence and data that is likely to influence policy makers, and build up the skills of the people who will be playing a key role as communicators and advocates.” (ENAR, 2011) p.13*

Holding the above considerations in the background, we now consider the main themes on which political consensus has been built in Europe with respect to the priorities for action of integration policies. On 20<sup>th</sup> July 2011, the European Commission published, as part of the Stockholm Programme adopted in 2009,<sup>1</sup> the latest Communication setting out a “European

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<sup>1</sup> The Stockholm Programme follows the Hague Programme for Justice and Home Affairs, adopted by the EU Council in 2004. The Hague Programme has made the first steps of a common EU migration and integration policy. The Common Basic Principles on Integration (CBPs), a set of non-binding guidelines, were adopted in late 2004 by EU Member States as part of the Hague Programme as a point of reference for their national integration policies. In 2005 the EU presented the Framework for the Integration of Third Country Nationals in the European Union, which proposed concrete measures for putting the CBPs into practice. The 2011 Agenda for Integration is largely based on these previous developments and crucially adds (in line with the new priorities of

Agenda for the Integration of Third Country Nationals”.<sup>2</sup> The most pressing integration challenges in Europe identified by the Agenda are:

- the prevailing low employment levels of immigrants, especially of immigrant women;
- rising unemployment and high levels of 'over qualification' (i.e. being employed in positions for which immigrants are overqualified);
- increasing risks of social exclusion;
- gaps in educational achievement;
- public concerns with the lack of integration of immigrants.

Meeting these challenges is considered important for both the immigrant and host populations, and is also seen as a significant contribution of the EU to the achievement of the targets it has set in the Europe 2020 Strategy, namely to raise the employment rate to 75% by 2020, to reduce school drop out rates to less than 10%, to increase the share of the population who completed tertiary education and to lift 20 million people out of poverty or social exclusion.

Facing the above challenges, the Agenda identifies increasing the socio-economic contribution of immigrants as one of three key areas/goals for policy action<sup>3</sup> and points to the following priority themes in order to achieve it:

- acquisition of **language knowledge** and knowledge of society (typically addressed by introductory programmes);
- greater and better participation in the **labour market**, especially of immigrant women;<sup>4</sup>
- greater efforts in the **education** system;
- ensuring better **living conditions and social inclusion** by removing possible barriers blocking effective access to social and health services, and fighting against poverty and exclusion of the most vulnerable, in particular refugees and other beneficiaries of international protection.

The Agenda's recommendations to Member States for tackling these issues are to ensure:

- *“the provision of language courses, reflecting immigrants varying needs at different stages of their integration process;*
- *the organisation of introductory programmes for newly arrived immigrants, including language and civic orientation courses. These programmes should address the specific needs of immigrant women in order to promote their participation in the labour market and strengthen their economic independence;*
- *measures to map and assess the individual's needs and to validate qualifications and professional experiences;*
- *increasing labour market participation of immigrants through active labour market policies;*
- *efforts in education systems equipping teachers and school leaders with the skills for managing diversity; recruiting teachers from immigrant backgrounds; and participation of immigrant children in early childhood education; and*

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the Stockholm Programme) a new, important role/responsibility to the immigrants' countries of origin, by requiring that the integration process start before the immigrant reaches his/her destination.

<sup>2</sup> “European Agenda for the Integration of Third-Country Nationals”, COM(2011)455 final, 20.07.2011 available at [http://ec.europa.eu/home-affairs/news/intro/docs/110720/1\\_EN\\_ACT\\_part1\\_v10.pdf](http://ec.europa.eu/home-affairs/news/intro/docs/110720/1_EN_ACT_part1_v10.pdf)

<sup>3</sup> The other two areas set in the Agenda are “More action at local level” (addressing issues at urban level and multi-level coordination and governance issues) and “Involvement of countries of origin” (see footnote 1).

<sup>4</sup> In 2010, the employment rate of third-country nationals aged 20-64 was ten percentage points lower than that of the total population in the same age group at the EU level, and that of immigrant women was substantially lower than both of these. Over qualification is also a major issue which badly hits immigrant women.

- *special attention to specific needs of vulnerable groups of immigrants.”*

With respect to the participatory and governance concerns of the Agenda, Member States should also ensure:

- *“measures to implement in practice the principle of equal treatment and to prevent institutional as well as every-day discrimination;*
- *efforts to remove obstacles to immigrants' political participation and enhance the involvement of immigrant representatives in the drawing up of and implementation of integration policies and programmes; and*
- *comprehensive integration strategies designed and implemented with the effective involvement of all local and regional stakeholders with a 'bottom-up' approach.”*

## 1.2 IMMIGRANTS IN THE EUROPEAN E-INCLUSION PERSPECTIVE

The acknowledgement of the opportunities afforded by ICT for the integration of immigrants has emerged at European policy level with the eInclusion Ministerial Declaration signed in Riga in June 2006. The Riga conference and the related declaration were an important step in the implementation of the broader information society policy carried out in Europe over the past decade first with the “eEurope – An information society for all” initiative launched as part of the Lisbon Agenda and then with the policy framework approved in 2005 called “i2010—A European Information Society for Growth and Employment”. eInclusion was identified as the third pillar of the i2010 framework<sup>5</sup> and the Riga Declaration defined six priorities for eInclusion policies, in some cases also setting quantitative goals to be achieved by 2010:

1. Address the needs of older workers and elderly people
2. Reduce geographical digital divides
3. Enhance eAccessibility and usability
4. Improve digital literacy and competences
5. Promote cultural diversity in relation to inclusion
6. Promote inclusive eGovernment

With respect to immigrants, in paragraph 24 of the declaration, ministers committed to promote cultural diversity in relation to inclusion 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. Particular efforts shall be made to improve the employability and productivity of minorities. Tailored ICT training and support actions can be important in this context.”*

Following upon this novel attention to the topic, the European Commission and specifically the then Directorate General Information Society and Media promoted a number of concrete actions such as:

- 1) the opening of a new line of research at the Commission’s Joint Research Center - Institute for Prospective Technological Studies (IPTS) focused on the opportunities and challenges of ICT use for/by immigrants and ethnic minorities (activities and results can be found at <http://is.jrc.ec.europa.eu/pages/EAP/eInclusion/IEM.html>);

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<sup>5</sup> The three broad aims and pillars of the framework were: 1) to create a single European information space, supportive of an open and competitive internal market for information society and media services; 2) to strengthen investment and innovation in ICT research; and 3) to support inclusion, better public services, and improved quality of life through the use of ICT.

- 2) information and awareness raising activities about the Riga cultural diversity priority addressing other directorates of the Commission dealing with immigrants from different perspectives, the European Migration Network and other fora;
- 3) funding of a project under the EU Competitiveness and Innovation Program called “Bridge-IT Thematic Network ICT for social integration and cultural diversity”, which ran between 2008-10 (<http://bridge-it-net.eu/>);
- 4) the admission of disadvantaged immigrants as a potential target group of proposals submitted to the 2010 annual call of the ICT - Seventh Framework Programme (2007-2013), which ultimately led to the funding of the MASELTOV project.

The new Digital Agenda, one of the seven flagship initiatives of the Europe 2020 strategy promoted by the EC, reaffirms that ICT constitute an important means of tackling social and economic inclusion. However, recent policy documents addressing eInclusion devote less attention to immigration and gender aspects, while issues related to ageing and disability have become prominent.

On the other hand, it should be noted that enhancing digital inclusion, and specifically developing digital skills and competences in all segments of the population are aims which cross today all European policies and in particular which have been important already for many years in those coordinated by Directorate General Education and Culture. Many of the initiatives that we present in Chapter three have in fact been funded under the European Life Long Learning programme which is run by DG EAC.

### 1.3 INTEGRATION PRIORITIES, ICT OPPORTUNITIES AND MYTHS TO AVOID

The integration challenges and priorities defined by the common EU integration policy inevitably call for a wide range of actions and methods to address them, depending on the specific domains, target groups, national and local contexts and so on.

Experiences carried out over the last decade across Europe show the potential of using ICT to tackle specific aspects of these integration challenges – and they also highlight their limitations. The scheme below provides a list of such ICT-related opportunities drawn from the literature and the projects examined for this report. Behind each ICT-related opportunity there is at least one real-life experience that could exemplify it. The highlighted opportunities are some those which broadly match with the aims of the MASELTOV project.

Integration theme	ICT-related opportunity
Developing second language (L2) proficiency and knowledge of society (KoS)	<ul style="list-style-type: none"> <li>• ICT-based L2 exams (by telephone, on PC)</li> <li>• ICT for delivering L2 and KoS courses (on PC at home, in the classroom, e-Learning, mobile learning)</li> <li>• Informal L2 learning through ICT use (online social networks)</li> </ul>
Education & life-long learning	<ul style="list-style-type: none"> <li>• ICT for managing culturally diverse students in the classroom</li> <li>• ICT to re-engage young people through informal learning (games, new media, social media)</li> <li>• ICT for vocational education and training</li> <li>• Providing digital literacy</li> </ul>
Labour market integration & economic participation	<ul style="list-style-type: none"> <li>• ICT and media skills for employability</li> <li>• ICT for competence assessment</li> <li>• Digital CVs and multimedia competence portfolios</li> </ul>

	<ul style="list-style-type: none"> <li>• ICT-based employment services</li> <li>• ICT –enabled “ethnic” business</li> <li>• ICT for financial inclusion (money transfer)</li> </ul>
Social inclusion – improving living conditions	<ul style="list-style-type: none"> <li>• ICT for multi-channel delivery of government services, including by supporting intermediaries</li> <li>• ICT for personal communication needs (at local level and abroad)</li> <li>• ICT-based awareness &amp; information delivery about citizen and immigrant rights</li> </ul>
Social participation and active citizenship	<ul style="list-style-type: none"> <li>• ICT for collective self-organisation, delivering third sector support, social engagement &amp; volunteering</li> <li>• ICT supporting audio-visual documentation of immigrant memory and giving “voice” in the public sphere</li> <li>• ICT opening opportunities for direct immigrants’ representation and participation in traditional and new media</li> </ul>

The opportunities listed in the above table and the idea that stands behind the MASELTOV project, that ICT applications could and should be better exploited to contribute to the challenges of integration, should not create or reinforce the wrong notion that a “technological fix” might be a solution for integration challenges.

It is important to always keep in mind that the reasons that stand behind the integration difficulties and failures faced by many immigrant people in Europe do not stem from and cannot be overcome simply by promoting a wider use of ICT in general and mobile phones in particular. Their roots are always in deeper socio-economic inequalities, cultural dynamics and other factors which –unfortunately- cannot be removed by technological solutions as such.



## 2. ICT AND IMMIGRANTS IN EUROPE: OVERVIEW OF EXISTING QUANTITATIVE EVIDENCE

In this chapter we provide an overview of the (still limited) quantitative data which exists about ICT access and uptake by immigrants living in Europe. Until recently, the only available evidence came from a few ad hoc national studies usually focusing on the largest immigrant and ethnic minority communities. Following an historical approach, we shall present in the first place results from these studies which have been carried out over the past decade in the U.K., Germany, Spain and Ireland.

Since 2010, Eurostat has introduced questions on the country of birth and the nationality of respondents in its *Community survey on ICT usage in households and by individuals*,<sup>6</sup> which is the main source of statistical data on the development of the information society in Europe. Thanks to this novelty, from 2012 it has become possible to segment some results of the survey in most of the 27 EU Member States by the respondents categories 'Non-EU nationals' and 'Non-EU born individuals', which are related to immigrants and can be compared to the values for the whole population. This data allows us to give a more up-to-date picture covering more countries and to make additional observations from the analysis of the results and their comparison with the above national studies.

Unfortunately, evidence about the diffusion and use of mobile phones by immigrants is still limited also in the Eurostat survey (which had a special module on mobile Internet in 2012) and no other quantitative evidence is currently available on this aspect for Europe. So we shall finish the chapter by providing some data from the international context and two US-based studies.

### 2.1 EVIDENCE ON ICT AND IMMIGRANTS FROM COUNTRY STUDIES

#### U.K.

In the U.K., three statistical surveys (DfES, 2003; Ofcom, 2007 and 2008)) have looked at the adoption of ICT among the main ethnic minority groups, EMGs, as they are called in that country. They show that take-up of digital media, and particularly of mobile phones and the Internet is similar (earlier surveys) or higher (most recent survey, see Table 1) among those EMGs compared to the U.K. population as a whole.

**Table 1 - Digital media access by ethnic minority groups in the U.K. in % (2007)**

	All U.K. Adults	Indian	Pakistani	Black Caribbean	Black African
Digital TV ownership	82	83	89	81	82
Mobile phone take-up	85	90	91	88	95
Internet take-up (all)	62	75	72	64	69
Internet take-up (under 45 years old)	74	78	82	73	71
Willingness to get Internet (among adults who do not have Internet at home)	15	25	35	30	30

Source: Adapted from (Ofcom, 2008)

<sup>6</sup> [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Glossary:Community\\_survey\\_on\\_ICT\\_usage\\_in\\_households\\_and\\_by\\_individuals](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:Community_survey_on_ICT_usage_in_households_and_by_individuals)

Table 1 provides figures from a sample of 1,200 EMG people in the U.K. surveyed in 2007. It shows that Internet take-up can be expected to increase further among EMGs given (see last row) their higher adoption propensity compared to the national average (this has actually happened as illustrated in Table 7 below).

When only younger people (under 45 years old) are considered, Internet take-up rates become higher and more similar across groups, showing that age and related group demographics<sup>7</sup> are key factors to explain the difference in ICT take-up levels across different population segments (for instance, Pakistani in the U.K. are on average much younger than the other groups). Income and socio-economic position, household structure (presence/number of children) and skill level also contribute to variations in take-up levels of computer and Internet by different groups, but they have been found to be rather more important in shaping usage patterns (breadth of media use, length of time spend online, simultaneous consumption, etc.).

Beyond age and socio-economic factors, *“to some extent ethnicity also emerged as a factor in its own right, for on average in some key aspects South Asian and Black groups emerge as disadvantaged, particularly South Asian (Muslim) and women”* (DfES, 2003, p. xvii). Lack of computer literacy combined with language and/or literacy difficulties are reported as important barriers to computer use for some groups.

#### GERMANY

A survey performed in early 2007 in Germany by ARD/ZDF Medienkommission about media adoption by 3,000 people from six immigrant groups<sup>8</sup> provides partly similar results (Simon, 2007). Take-up of mobile phones and computers was higher by immigrant groups, while daily usage of the Internet was higher among the German population (except for Polish immigrants), including when the younger segments are considered. A significant age-related gap is visible in the last two rows both within native and immigrant groups.

**Table 2 - Availability and use of digital media by immigrant groups and German population in % (2006)**

	German Population	All Immigrants	Late Ethnic German Repatriates	Turkish	Polish
Availability of cell phone	86	91	89	93	91
Availability of computer/laptop	69	76	79	76	78
Daily Internet usage (all)	28	22	23	20	29
Daily Internet usage (age 14–29)	46	38	n.a.	n.a.	n.a.

Source: Adapted from Simon (2007)

Age and other factors affecting Internet usage within immigrant groups show up again in Table 3, about Turkish immigrants. The number of regular Internet users decreases significantly with age; being born in Germany and mastering the language also seem to make a big difference, and a strong gender gap is clearly visible.

<sup>7</sup> Under-45s account for 62% to 83% of all adults in each of these EMGs compared to 52% of the general UK adult population. By contrast, 19% of all UK adults is aged 65 and over, compared to only 2% to 5% in each EMG.

<sup>8</sup> Besides the groups listed in Table 2 immigrants from Italy, Greece and the Balkans were also covered by the survey, each one of them with approximately 500 interviews.

**Table 3 - Internet use by Turks in Germany (2006)**

	All	Age			Gender		Place of birth		Knowledge of German language		
		14-29	30-49	>50	male	female	Germany	abroad	good	medium	little
Basis	500	198	236	66	202	298	163	334	229	106	165
Regular Internet users*	36%	62%	25%	9%	46%	25%	67%	23%	57%	36%	12%

\* Rather than daily use as in Table 2, 'regular use' here refers to use at least once in the 3 months before the survey. In later tables from the Eurostat survey, we define 'regular use' in more recent years as weekly usage.  
Source: Adapted from Simon (2007)

## SPAIN

In Spain, the National Statistics Institute (INE) conducts the annual *ICT in households* survey<sup>9</sup> which is the national side of the Eurostat survey. We present these results because INE started collecting information about respondents' nationality many years ago, thus can present longer time series for some variables. Also, by using the broad 'foreigners' (non-nationals) category, it produces statistically significant results for some interesting variables, for which data is not available for nationality sub-categories. INE's survey covers a statistically representative sample of the population which in 2011 included about 6.7% of foreigners. Although foreign respondents include also EU nationals,<sup>10</sup> the results showed in Table 4 are coherent with those about non-EU immigrants from the other countries and from a survey conducted in Catalonia (Spain) which captured more in details the respondents' nationality.<sup>11</sup>

**Table 4 - ICT users in Spain in the last 3 months among nationals and foreigners in % (2004-2011)**

	2004	2007	2008	2009	2010	2011
<b>PC users</b>						
Spanish	49.3	57.3	60.9	63.5	67.3	69.2
Foreigners	40.5	55.4	61.9	59.7	68.2	70.1
<b>Internet users</b>						
Spanish	40.6	52.0	56.7	60.0	64.1	67.1
Foreigners	34.5	52.1	56.8	58.0	65.6	67.3
<b>Mobile phone owners</b>						
Spanish		86.0	88.4	90.1	91.8	92.6
Foreigners		94.5	94.3	95.0	97.3	95.9

Source: our elaboration on INE data

In a few words, thanks to higher growth rates, over a few years computer and Internet penetration levels among foreigners have reached and sometimes overcome those of national

<sup>9</sup> The website <http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft25%2Fp450&file=inebase&N=&L=0> gives public access to the *ICT in households* survey data which can be queried for different years and variables.

<sup>10</sup> In 2006, about 4 million foreigners lived in Spain: less than 1 million were from the EU and over 3 million were non-EU citizens (including at the time from Bulgaria and Romania). We do not know to what extent the panel of the *ICT in households* survey reflected this nationality composition.

<sup>11</sup> The survey performed in 2006 (Ros, 2010) confirms the high ICT adoption rates by some immigrant groups and also significant variations among them: people from 'EU and rest of Europe' and those from Latin America used the Internet (respectively 78% and 77%) and e-mail (respectively 72% and 68%) more than Spanish respondents (57% and 43%). However, among those from the 'rest of the world' (mostly immigrants from Asia and Africa) only 45% used the Internet and 30% used e-mail.



respondents. As we shall see later, the convergence process among Internet users is confirmed also for non-EU nationals in the Eurostat's data for Spain (see Table 7).

With respect to communication purposes, Table 5 (referred to Internet users only) shows that foreigners were more frequent users of Internet-based communication services, except for blogs.

**Table 5 - Internet use in Spain for communication purposes in the last 3 months, % of Internet users (2008)**

	Spaniards	Foreigners
Telephone	8.3	25.2
Video/Webcam	16.7	42.6
Chat, online forum	24.7	38.8
Instant messaging	52.9	66.0
Read blogs	31.5	24.4
Manage own blog	9.4	9.3
Other	8.0	9.8

Source: our elaboration on INE data

Concerning other usages of the Internet, users in the two groups have similar patterns with respect to leisure and entertainment purposes, whereas for personal purposes<sup>12</sup> many more foreigners use the Internet to search for a job (31% in 2008, 44% in 2009) compared to Spaniards (respectively 21% and 26%). Internet use for job searching among immigrants was high also in the U.K. (Ofcom, 2008). Given that personal use of the Internet mainly refers to the respondent's social and economic participation in the (host) society, the above result might be interpreted to reflect shortcomings in that process faced by immigrant people, in particular limited access to banking services which are prerequisites for online banking and purchases.

#### NETHERLANDS

A report by the Netherlands Institute for Social Research/SCP (van den Broek & Keuzenkamp, 2008) provides the results of about 3,500 interviews done in 2004 to IEM people from four groups (Turks, Moroccans, Surinamese and Antilleans) on several aspects of their daily life including media and Internet use. The figures show differences in Internet use across IEM groups, at an overall lower level compared to Dutch nationals. They again show very clear gaps within each group related to personal factors such as age (broadly corresponding to differences between first and second generation immigrants), education and knowledge of the Dutch language. Commenting on this, the report's authors conclude that whereas ethnicity plays a role on other aspects such as social contacts and participation in sports, media consumption differences across ethnic groups disappear or become very small after statistical control for compositional differences is applied.

#### IRELAND

A more recent, albeit much smaller study (Komito & Bates, 2011) has investigated ICT use within two groups of 65 Polish and 65 Filipino nationals in Ireland in 2010. They found high levels of technology usage among these immigrants: 95% used the Internet; 95% owned a laptop or PC; 94% of Polish respondents used Skype or other VoIP applications and 52% of

<sup>12</sup> The survey envisaged the following personal internet usage options: read e-mail, information search, travel information, download software, read news, job search, health information, online banking, e-commerce, information search on education/training opportunities, doing online courses, learning purposes.

Filipino respondents did so;<sup>13</sup> 92% had broadband at home and 80% owned a webcam. This compares with lower percentages found by a large survey of Irish residents in similar age groups : 83% used the Internet in the 25-34 age group and 76% in the 35-44 group, while 77% in the 25-34 age had broadband at home. Both Polish and Filipino immigrants were thus found to be avid and efficient adopters of new communications technologies, especially for using Skype and webcams, but also for online social networking purposes.

## 2.2 SOME RESULTS ON IMMIGRANTS FROM EUROSTAT'S SURVEY ON ICT USE BY INDIVIDUALS

The annual households panel survey on *ICT Usage in Households and by Individuals* harmonized under Eurostat and carried out by statistical offices in all Member States is currently the main EU wide source of data on this topic. Until 2010, the survey did not ask interviewees about their nationality or country of birth. Only a few countries (such as Spain, as seen above) had started to do this by identifying foreigners (non-nationals). In 2010, Eurostat introduced for the first time the option to request the nationality and the country of birth of the survey's respondents and made this compulsory from the 2012 survey onwards. In practice, this and related changes (e.g. adjusting population samples to obtain useful results) are being introduced gradually in many countries. Therefore, statistically significant and reliable data for the new categories<sup>14</sup> is only available for some countries, some of the survey's variables and some years. Possibly due to these limitations, at the time of writing no study has yet been undertaken or has been published using directly this new data source.

The EC JRC IPTS<sup>15</sup> is completing in 2013 the ICTEGRA project,<sup>16</sup> which surveyed over 1500 Third Country Nationals (Non-EU nationals) from selected immigrant groups in three European countries (Spain, Bulgaria and the Netherlands) about their uses of ICT, and the relations between these uses and their level of integration in the host countries. Unfortunately the survey results will only be available late in the second half of 2013. Eurostat's *ICT Usage in Households and by Individuals* survey and *International Migration Flows* survey were used to define the ICTEGRA survey's own sample.

The tables presented below were thus extracted directly from Eurostat's online database<sup>17</sup> by querying the dataset about individuals' use (and non-use) of the Internet (variable *isoc\_ci\_ifp\_iu*); their frequency of use of the Internet (*isoc\_ci\_ifp\_fu*); and their use of mobile connections to the Internet (*isoc\_ci\_mob*).

Given the topic of this report, the 'individual type' options selected in the query and for which results are provided are:

- All individuals, i.e. all respondents to the survey which are sampled in the whole population between 16 and 74 years old people;
- Non-EU nationals, i.e. individuals with the nationality of a non-EU country. These include both recently arrived and long-term immigrants, including their children, who have not acquired the nationality of a EU Member State;

<sup>13</sup> The smaller number of Filipinos using Skype /VoIP is explained by the fact that many contacts live in rural areas without Internet availability and are contacted by phone instead.

<sup>14</sup> The categories currently used are: CB\_EU\_FOR - Individuals who are born in another EU Member State; CB\_EXT\_EU - Individuals who are born in non-EU country; CB\_FOR - Individuals who are foreign-born; CB\_NAT - Individuals who are native-born; CC\_EU\_FOR - Nationals of another EU-Member State; CC\_EXT\_EU - Nationals of non-EU country; CC\_FOR - Non-nationals; CC\_NAT - Nationals.

<sup>15</sup> The European Commission's Joint Research Center - Institute for Prospective Technological Studies.

<sup>16</sup> See the project's website at [http://is.jrc.ec.europa.eu/pages/EAP/eInclusion/IEM\\_Ictegra.html](http://is.jrc.ec.europa.eu/pages/EAP/eInclusion/IEM_Ictegra.html)

<sup>17</sup> The entry point has been the URL:

[http://epp.eurostat.ec.europa.eu/portal/page/portal/product\\_details/dataset?p\\_product\\_code=ISOC\\_CI\\_IFP\\_IU](http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=ISOC_CI_IFP_IU)

- Non-EU born individuals, i.e. individuals who are born in non-EU country. These include also immigrants born outside of the EU who have acquired the nationality of a Member State.

None of the two Non-EU born/nationals categories corresponds in a clear way to the priority target group of the MASELTOV project. These are immigrants who have been living in Europe for a relatively short time and with relatively disadvantaged socio-economic conditions thus most likely to face a range of integration challenges that MASELTOV aims to address. Since acquiring the EU nationality is commonly considered as an important factor for integration (depending on the perspectives, as a driver/reward or as a facilitator of integration), the Non-EU nationals category can be considered a better approximation to that target group than the other. However, given that both categories hide a very diverse immigrant population in general, and even more so in specific countries, the results in the tables below are presented for both of them.

#### CONNECTED INDIVIDUALS AND NON-USERS OF THE INTERNET

The first set of figures concerns the ‘digital inclusion’ of the population. Nowadays, a basic measure of it drawn from the Eurostat survey and often used by researchers (e.g. in the ICTEGRA project) is the share of people who have used the Internet in the last 3 months. These can be labelled “connected people”. Table 6 shows in the first two columns the percentage of connected individuals for each respondent category. In the other two columns, there is the share of connected individuals who are ‘regular’ Internet users, defined as those who use the Internet once a week, including everyday.

**Table 6 - Connected individuals and regular Internet users in the EU27 - 2011-12 (% of respondents)**

	Connected individuals		Regular users among connected individuals	
	2011	2012	2011	2012
All individuals	71	74	94	95
Non-EU born	68	76	91	94
Non-EU nationals	61	70	88	94

Source: our elaboration on Eurostat 2012, see footnote 17

Table 6 shows that across the EU27 on average over 70% of the population (between 16 and 74 years old) used the Internet in the 3 months before the survey’s interview in 2011 and 2012. Since 94-95% of those who are connected also used the Internet weekly in 2012, connected individuals across the EU are today also regular Internet users.<sup>18</sup>

More in detail:

- in 2012, Non-EU nationals still have a lower value of connected people (70%) compared to the whole population (All individuals with 74%) and Non-EU born individuals (76%), even though the gap with these groups is shrinking fast;
- Non-EU born individuals are connected at about the same level as the whole population with small differences in the two years of measurement (slightly lower in 2011 and higher in 2012);

<sup>18</sup> The only exception by looking at the available country data (non presented here) is Greece, with a lower and falling share of regular users among connected Non-EU nationals: down from 90% in 2010 to 80% in 2012. In all other countries for which data exists, the share of regular users among connected people tends to grow, confirming the convergence process across the three groups seen at EU level.

- both Non-EU born/ nationals categories witnessed in 2012 a much higher increase of connected people (respectively +8 and +9 percentage points over 2011) compared to All individuals (+3 points). On average, therefore, differences among the groups are fading away.

Behind the European average figures about connected people stand quite different situations at Member State level. As already mentioned, the Eurostat survey does not yet provide statistically significant and reliable data for the population categories discussed here for all Member States and all 3 years of measurement. A complete picture therefore is not available. Table 7 below presents a subset of the available data, extracted in order to make it easier to read and comment some useful results for this report. With this aim, countries have been removed when data for Non-EU nationals is missing; when changes in the two Non-EU born/nationals categories fluctuate from one year to the next in unrealistic swings (greater than + / - 10 percentage points); and when data for the Non-EU born/nationals categories is available only for 2011. Based on these criteria, 16 countries out of the 27 Member States are found in the table below (in which highlighted countries have a share of connected Non-EU nationals higher than the whole population average).

**Table 7 - Connected individuals in some EU countries – 2010 vs 2012 (% of respondents)**

	All individuals		Non-EU born		Non-EU nationals	
	2010	2012	2010	2012	2010	2012
EU27	n.a	74	n.a	76	n.a	70
Bulgaria	43	52	65	87	81	78
Denmark	88	92	86	90	79	92
Cyprus	52	61	47	62	42	57
Estonia	74	78	45	58	57	66
Finland	86	90	n.a.	92	n.a.	93
France	75	81	69*	74	60*	62
Germany	81*	82	79*	82	81*	77
Greece	44	55	35	45	34	37
Ireland	67	77	90	88*	88	85*
Latvia	66	73	47*	52	47*	59
Luxembourg	90	92	84	90	87	96
Netherlands	90	100	91	99	92	93*
Portugal	51	60	70	77	70	73
Slovenia	68	68	47	57	36	49
Spain	64	70	67	74	63	71
United Kingdom	83	87	n.a.	89	n.a.	95

\* refers to 2011 value, used when either the figure for 2010 or 2012 is missing

Source: our elaboration on Eurostat 2012, see footnote 17

The main results about connected individuals at country level are:

- the significant variation of Internet diffusion in the overall population across countries which tends to be followed also by the Non-EU born /nationals components (except in some instances (see below) where these categories have a much higher or lower share of connected people compared to the country average);
- in half of the cases (8/16 countries), Non-EU nationals are less connected than All individuals (same for the aggregate EU level). A lower share of connected people (4 or more percentage points less compared to the All individuals category) can be found

- among Non-EU nationals in Cyprus, Estonia, France, Germany, Greece, Latvia, the Netherlands (but the figure there is 93% vs 100%) and Slovenia;
- in France (very much so), Germany, Greece, the Netherlands and Slovenia the gap in connected people with the whole population is larger for Non-EU nationals than for Non-EU born individuals;
  - in Denmark and Spain, the share of connected people in the two Non-EU categories is basically the same as in the whole population, albeit at different levels (above 90% in Denmark and around 70% in Spain). In Spain, Non-EU born individuals are in fact more connected than All individuals;
  - in other 6 countries (highlighted in the table) Non-EU nationals are in fact more connected than the whole population; significantly so in Bulgaria (78% vs.52%), Portugal (73% vs 60%) and to a lesser extent in the U.K. (95% vs 87%). In the same 6 countries Non-EU born people are also more connected than All individuals, with an even higher share than Non-EU nationals in Bulgaria, Ireland and Portugal, but a lower one in Luxembourg and the U.K..

The other side of the above picture concerns the situation of the people who never used the Internet, illustrated in Table 8.<sup>19</sup>

**Table 8 - Individuals who never used the Internet at EU level and in some countries – 2011/12 (% of respondents)**

	All individuals		Non-EU born		Non-EU nationals	
	2011	2012	2011	2012	2011	2012
EU27	24	23	25	21	31	25
Cyprus	41	36	43	34	45	39
Estonia	20	19	42	39	32	30
France	18	15	22	24	28	35
Germany	16	15	17	14	16	15
Greece	45	42	52	52	59	59
Latvia	27	24	48	44	49	37
Portugal	41	34	18	16	23	:
Spain	29	27	24	20	28	23

Source: our elaboration on Eurostat 2012, see footnote 17

In 2012, less than a quarter (23%) of the population (16 to 74 years old) at European level had never used the Internet. Non-EU nationals had a slightly higher share of ‘disconnected’ people (25%), but falling rapidly from the 31% value in 2011. On the other hand, Non-EU born individuals in 2012 had a better position (only 21% non-users) than both All individuals and Non-EU nationals (in line with the slightly higher share of connected people seen in Table 6).

The situation varies across countries also with non-users. The shares of non-users are very similar across the three population categories (albeit at different absolute levels) in Cyprus (high), Germany (low) and Spain (half-way). Portugal stands out again as the country where Non-EU born/nationals have the largest gap compared to All individuals: the whole population has a much higher share of non-users. On the other hand, Non-EU nationals are in

<sup>19</sup> There are less countries in this table because there are fewer reliable data available from the Eurostat survey on “non-users”.

a much worse condition in France (less so the Non-EU born), Greece, Latvia and Estonia (in both these countries the gap is even larger for Non-EU born people).

#### USE OF MOBILE PHONES TO ACCESS THE INTERNET IN THE EUROSTAT SURVEY

The Eurostat survey asks questions about the ownership and use of handheld devices and mobile phones only to households and not to individuals. It is therefore impossible to draw from it information about that aspect for the three population segments being considered here. However, in 2012, the survey developed a special module on mobile connection to the Internet which did address individuals. The most relevant results are illustrated in Table 9, which gives the percentage of people who used a mobile phone or smartphone to access the Internet in the whole population and in the two usual sub-categories. This variable is a good proxy for the diffusion of data-enabled mobile phones in general, because it is unlikely that owners of such devices would not use them for accessing the Internet (although many might restrain such use for cost or other reasons). For the reasons already discussed before, also in this case only some countries have reliable data for the Non-EU born/nationals categories and the answers are available only for 2012.

**Table 9 - Individuals who used a mobile phone or smartphone to access the Internet at EU level and in some countries – 2012 (% of respondents)**

	All individuals	Non-EU born	Non-EU nationals
EU27	27	34	30
Austria	35	33	n.a.
Belgium	28	25	23
Cyprus	17	15	10
Denmark	50	51	52
Estonia	18	6	10
Finland	45	48	:
France	33	30	27
Germany	23	19	19
Latvia	16	6	9
Lithuania	14	7	:
Luxembourg	46	48	:
Netherlands	52	52	:
Portugal	12	15	:
Spain	31	24	20
Sweden	59	61	:
United Kingdom	56	59	65

Source: our elaboration on Eurostat 2012, see footnote 17

At European level, those who used a mobile phone or smartphone to access the Internet in 2012 were on average 27% of All individuals, but a higher share (30%) among Non-EU nationals and even higher among Non-EU born people (34%).

Looking at country level figures, one notices again the significant variation of All individuals averages across countries –from 12-14% in Portugal and Latvia to 50% and above in Denmark, the Netherlands, Sweden and the U.K.- and its reflection in both Non-EU born/nationals components. Interestingly, figures of the Non-EU born/nationals categories are above All individuals averages in those countries of Central and Northern Europe with the highest use of mobile phones or smartphone to access the Internet (Denmark, Finland, Luxembourg, Sweden and the U.K.). These are also the countries where the Non-EU born/nationals categories also have the highest shares of connected people. The exception, as noticed before, is Portugal which is located in Southern Europe.



Table 10 highlights the frequency of answers given by connected people (those who used Internet in the last 3 months) to the question about reasons for using Internet via a mobile phone or other handheld device. Highlighted rows give the figures for All individuals in each country, whereas the plain rows concern Non-EU nationals.

**Table 10 - “Used mobile Internet via handheld device for ...reason” – 2012 (% of individuals who used Internet in the last 3 months)**

	Sending / receiving e-mails	Reading or downloading online news / newspapers / news magazines	Reading or downloading online books or e-books	Playing or downloading games, images, video or music	Using podcast service to automatically receive audio or video files of interest	Participating in social networks	Other activities
EU27	29	20	5	17	5	22	7
Non-EU nat.	33	23	8	19	6	28	7
Belgium	26	15	2	15	2	20	5
Non-EU nat.	32	n.a.	n.a.	n.a.	n.a.	27	n.a.
Denmark	40	35	6	25	6	34	13
Non-EU nat.	46	41	n.a.	24	n.a.	42	n.a.
Germany	23	17	3	15	4	16	3
Non-EU nat.	21	14	n.a.	12	n.a.	11	n.a.
Spain	36	28	8	18	9	31	18
Non-EU nat.	22	15	n.a.	13	n.a.	25	14
France	28	13	2	16	4	20	13
Non-EU nat.	32	16	n.a.	n.a.	n.a.	16	n.a.
Cyprus	20	16	3	12	2	19	1
Non-EU nat.	14	11	n.a.	n.a.	n.a.	12	n.a.
Latvia	16	10	1	8	2	11	8
Non-EU nat.	10	7	n.a.	4	n.a.	6	8
U.K.	52	32	13	29	8	41	6
Non-EU nat.	54	41	16	31	n.a.	47	n.a.

Source: our elaboration on Eurostat 2012, see footnote 17

At EU level, one can see first of all that the main reasons for using the mobile Internet are broadly similar between All individuals and Non-EU nationals (rankings are the same and the levels are close). Secondly, systematically more individuals among connected Non-EU nationals have used the mobile Internet for each of the listed purposes than All connected individuals. More frequent use among Non-EU nationals seems to concern in particular participating in social networks (+6 percentage points) and communication via e-mails (+4 percentage points).

Figures at national level, for the few countries and purpose types for which data is available, show two different situations. In Belgium, Denmark, the U.K. and France (except for using social networks) the above picture is replicated, with Non-EU nationals having higher values than All individuals for all listed purposes. In the other countries the opposite seems to occur systematically, with much lower values across the board among Non-EU nationals especially in Spain and to a lesser extent in Cyprus and Latvia. In Germany, like in France, Non-EU nationals seem in particular to use less the mobile Internet for social networking.

What is the relevance of the evidence provided above as such and with respect to the national studies presented earlier?

From a methodological point of view, for the first time statistically solid data is available and can be compared across at least some countries in Europe about some aspects of the adoption and use of the Internet, including through handheld mobile devices and services, by Non-EU nationals (or Third Country Nationals as they are commonly known in European immigration policy discourse) and Non-EU born individuals. To the extent that more specific socio-economic meanings can be attached to these categories, the Eurostat survey has started producing potentially useful data for anyone wanting to study the use of ICT by and for the immigrant population or to develop actions in this domain. To really move ahead in this direction, it would be necessary to know the composition of the individuals who make up the Non-EU nationals and Non-EU born groups in the survey's samples and respondents, by nationality and country of birth and by those demographic (age) and socio-economic dimensions (education and occupation) known to crucially influence ICT adoption and use. This would entail making the survey's micro data accessible and most likely it would raise the need to redesign the survey's sampling approach to obtain statistically significant results when crossing these variables. The ICTEGRA project mentioned above might come up with considerations and suggestions also in this respect.

Content wise, Eurostat results confirm at aggregate EU level and for many countries the common finding of the above national studies that Internet use among Non-EU nationals is close to the level of the whole population and has been converging fast towards it. In general, Non-EU born people are closer or even above the whole population average.

This result however does not stem from a uniform trend on a homogenous situation, as one might be led to think by looking at the sparse and incomparable data of the national studies.

The share of connected people in the whole population still differs significantly across EU countries and the same applies to the non-EU nationals component.

Country-level factors (the overall advancement of ICT use in a given society, which in turns reflects myriads of other factors) clearly affect ICT use also in the non-EU immigrant population. Except for Bulgaria and Portugal (where the share of connected individuals among non-EU nationals is much above the national average, itself relatively low), elsewhere we see lower than average positions of Non-EU nationals in the less advanced countries (in terms of share of connected people) and better positions for Non-EU nationals in the most advanced ones. Interestingly, in Finland, the U.K., Luxembourg and Denmark Non-EU nationals are connected as much or even more than the whole population, which itself stands at the highest European levels. A striking anomaly in this picture is France, which has a relatively high share of connected people in the whole population, but a much smaller one in the Non-EU nationals component (almost 20 percentage points less).

Country factors therefore also interplay with factors specific to the composition of Non-EU nationals in each country in terms of demographic, education, and other socio-economic factors which are known to be related with ICT adoption (see Table 11 below). Immigration flows with respect to these dimensions differ across countries and change over time. In particular in the last few years a growing attention has been put in Central and Northern Europe on the education and employment background of the new immigrants which are encouraged or restrained to arrive. The results of these changes in the flows and gradually in the stock of immigrants in different countries most likely show up also in the ICT adoption statistics. Which of the above dimensions are most important and how they interplay among them and across different national contexts are complex questions that need to be explored.



Table 11 is drawn from a preliminary (unpublished) report of the ICTEGRA project and highlights the variability of ICT adoption depending on some demographic and socio-economic variables. The ICTEGRA survey interviewed a sample of 1653 immigrants in Bulgaria, the Netherlands and Spain selected so as to be representative of the nationality and age composition of non-EU nationals found by the Eurostat's *International Migration Flows* survey in those countries and of the level of connectedness among non-EU nationals found by the *ICT Usage in Households and by Individuals* survey in those same countries.

Given how the sample was selected, it is no surprise that shares of connected people (i.e. those who used the Internet in the last 3 months) are very close to those seen in Table 7: 90% in the Netherlands, 77% in Bulgaria and 72% in Spain. The number of connected vs non-connected immigrants to be interviewed in each country, as the shares of main nationality groups and their age composition were pre-defined. Therefore, percentage values in Table 11 are not representative of the referred population group (as they would be, if they came from a randomly selected sample). The interest of Table 11 lies nevertheless in the high variability in connectedness of the immigrant population once key dimensions characterizing respondents are taken into account. Similar pictures could be drawn for the whole population using Eurostat's data at European and country level.

**Table 11 - Characterization of connected immigrants in Bulgaria, the Netherlands and Spain in the ICTEGRA study - 2012**

	Connected individuals	Chi2	Sig.
<b>GENDER</b>			
Female (n=756)	81%	4.669	.031*
Male (n=897)	77%		
<b>AGE</b>			
16-24 (n=428)	91%	205.208	.000*
25-54 (n=1094)	80%		
55-74 (n=131)	33%		
<b>EDUCATION</b>			
Primary or lower secondary education, no formal education (n=359)	54%	216.267	.000*
Upper or post secondary education (n=800)	81%		
Tertiary education (n=483)	95%		
<b>EMPLOYMENT</b>			
Employee full-time work (n=501)	82%	277.300	.000*
Employee part-time work (n=153)	80%		
Self-employed (includes family workers, people working in family business) (n=157)	79%		
Unemployed looking for a job (n=221)	63%		
Student with part-time jobs (n=350)	97%		
Student with part-time jobs (n=103)	99%		
Homemaker (non-remunerated) (n=69)	55%		
Other not in the labour force (retired, inactive, military service) (n=99)	33%		
<b>OCCUPATION</b>			
Professional (i.e. doctors, architects, teachers/professors, veterinarians, librarians, lawyers or paralegals, actors, musicians, etc.) (n=94)	96%	104.344	.000*
Technician or associate professional (i.e. engineering technicians, nurses, legal associates, information technology technicians) (n=106)	98%		
Clerical support worker (i.e. office clerks, secretaries, bank tellers, client information workers) (n=94)	94%		
Service or sales worker (i.e. travel attendants, cooks, hairdressers, cashiers, personal care workers, child care workers, shop salesperson) (n=345)	81%		
Skilled agricultural, forestry and fishery worker (i.e. crop growers, animal producers, forestry workers, fishery workers, subsistence crop and livestock farmers) (n=19)	74%		
Craft and related trades worker (i.e. electricians, tool makers, steel and metal workers, blacksmiths, printing and handcraft workers, garment, food processing workers)	77%		

(n=60)			
Plant and machine operator or assembler (i.e. mining and mineral processing workers, metal processing, chemical, food processing, wood, textile machine operators) (n=31)	42%		
Elementary occupation (i.e. cleaners and helpers, agricultural labourers, food preparation assistants, street vendors) (n=177)	68%		
Armed forces occupation (commissioned and non commissioned armed forces officers) (n=2)	0%		
Other (n=60)	81%		
<b>AREA of residency</b>			
Urban area (n=1269)	80%	4.563	.102
Sub-urban area (n=213)	76%		
Rural area (n=171)	75%		
<b>NATIONALITY</b>			
Morocco (n=141)	69%	109.195	.000*
Pakistan (n=129)	57%		
Latin America (n=219)	79%		
Other non-EU nationality in Spain (n=135)	76%		
Russia (n=131)	80%		
Macedonia (n=125)	69%		
Turkey (n=126)	79%		
Former CEE countries (n=135)	81%		
China (n=107)	94%		
Turkey (n=103)	93%		
United States (n=100)	99%		
Asia (n=100)	78%		
Other non-EU nationality in the Netherlands (n=102)	85%		

\*. The Chi-square statistic is significant at the .05 level.

Source: unpublished report presented at ICTEGRA project's workshop, Brussels, July 4<sup>th</sup> 2013

### 2.3 ADDITIONAL EVIDENCE ON MOBILE PHONE USE AND FUTURE TRENDS

Besides the Eurostat figures just presented on the use of mobile Internet, there is currently no systematic comparable data on mobile phones adoption by immigrants across Europe. Some data about the diffusion of mobile phones in this segment of the population exists in the country studies that we presented before and for smartphones some information can be extrapolated from US-based studies and more general international statistics.

The country studies in section 2.1 show that already several years ago mobile phones were in fact widely used by immigrants, with much higher adoption rates than for computers and in comparison to the whole population. Ownership rates above 90% among immigrants were common in 2007-08 in some countries, and figures above 95% were found in Ireland and Spain more recently. Mobile phones play many crucial roles in immigrants' life and are much more accessible than computers (Ros & Gordano 2013), so these results are not surprising.

Data specifically on smartphones adoption by immigrants in Europe are scarce.

An online survey done in 2011-12 of ICT use by immigrants, undertaken by UOC on request of JRC-IPTS in a pilot study that eventually led to the ICTEGRA project, found that 49% of over 700 respondents used a smartphone. The survey, which covered eight Member States, addressed connected immigrants only, so this result likely overestimates smartphone diffusion within the whole immigrant population.

Preliminary results from the ICTEGRA study show that more than half of the respondents (55%) in the three countries use mobile phones (or smartphones) to access the Internet: 64% in the Netherlands, 60% in Spain. In the case of Bulgaria, 46% of the respondents do not access the Internet via any mobile device. The figures for the Netherlands and Spain are

higher than those from Eurostat for the same countries, which might reflect a different composition of the underlying samples and other factors.

Finally, MASELTOV partner the Migrants Resource Centre (London) interviewed in 2012 250 customers of their services (55% non-EU nationals) on a number of issues, including a few questions about ICT use. About 90% said that they use the Internet; 94% that they have regular access to a mobile phone (own or someone else's) and 29% to a smartphone (25% own).

Evidence from the United States confirms immigrants' greater disposition to acquire the most modern communication devices. Using Pew Internet and American Life Project's report '*Americans and their Cell Phones*' (2011) as a comparison, the Digital Diaspora study notes that "45% of U.S. adults own a smartphone while 68% of the immigrant respondents had one. Most tended to purchase unlimited plans covering data, texting and phone calls" (Welcoming Center for New Pennsylvanians, 2012). The same study also notices that, whereas international calling and Skype usage are predictably much greater among immigrants than the native-born, so is mobile usage for texting (95% vs. 73%), online purchasing (35% vs. 20%), updating social media (65% vs. 59%), uploading videos or audios (47% vs. 22%), and uploading photos (62% vs. 22%).

Another recent report concluded that "Hispanics lead Whites in using mobile phones to access the Internet, 40%-34%, though they are significantly behind African Americans, at 51%". (Pew Hispanic Center, 2013).

The above figures from the US and other facts presented below make it reasonable to assume that an ever wider adoption of smartphones by immigrants, as by the whole population, will occur also in Europe.

In many immigrants' countries of origin, there are relatively few traditional telephone landlines due to infrastructure limitations and therefore mobile phone use has recently eclipsed landline usage.<sup>20</sup> In emerging economies such as those listed in Table 12 feature phones have a large share of the market.

**Table 12 - Proportion of population using feature phones in select non-EU countries**

Argentina 40%	Mexico 53%
Brazil 78%	Nigeria 89%
India 77%	Russia 46%
Indonesia 70%	South Africa 70%
Kenya 88%	Thailand 40%
Malaysia 46%	Turkey 39%

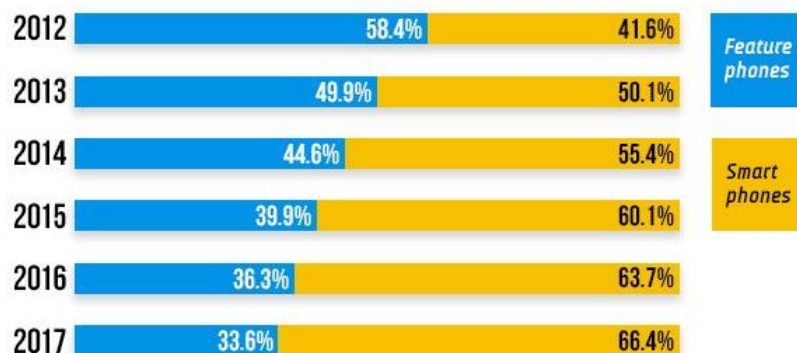
Source: BuzzCity (based on 300m clickthroughs from mobile phone adverts)

Feature phones occupy the middle ground between basic phones that simply make, and receive calls and text messages, and smartphones. They may boast basic forms of GPS, camera, MP3 player and some kind of Internet access, as well as the ability to run simple apps. They are often cheap, hardy and tend to have exceptional battery life which make them very successful among people in emerging economies. Research firm Gartner estimates worldwide feature phone sales totalled 264.4 million units in the fourth quarter of 2012, easily

<sup>20</sup> According to UNDP (2012), the total number of mobile phone subscriptions worldwide is about 5.4 billion. Given that individual subscribers may have multiple and/or inactive SIM cards, the actual number of individual mobile subscribers worldwide is estimated at around 3.9 billion, in a global population of nearly 7 billion people. Mobile phone penetration rates stand at almost 45% in low-income countries and 76% in lower middle-income countries. Since entire villages in poor and/or rural communities will often share one or two cell phones, it is also estimated that 80% to 90% of people in some poor countries have at least minimal access to a mobile phone.

outstripping smartphone sales of 207.7 million. One can expect therefore that ever more immigrants arrive in Europe with a strong propensity for mobile use, possibly with experience already with some more advanced functions, and the transition to smartphones and other similar devices seems an easy step.

**Figure 1 – Predicted smartphone v feature phone shipments worldwide – 2012 -2017**



Source: IDC *Worldwide Quarterly Mobile Phone Tracker*, released in March 2013

The smartphone market is in fact growing quickly everywhere. According to International Data Corporation (see Figure 1) 2013 will mark the first time vendors ship more smartphones than feature phones. IDC estimates 918.6 million smartphones will be shipped this year - 50.1% of the global total of mobiles. Also according to market research company OVUM's report "*Mobile Phone and Smartphone Forecast: 2012-17*" (published in September 2012) the fastest-growing segment over the forecast period will be smartphones. After 2011 the feature phone segment will be overtaken by smartphones which will outperform the overall market for mobile phones, growing at a compounded annual growth rate of 23% between 2011 and 2017. Smartphones market will account for 68% of the overall mobile phone market globally in 2017. New shipments in developed markets, such as North America and Western Europe, will be almost entirely made up of smartphones. Feature phones will continue to play a small role in emerging markets in 2017.

Given the above trends, we can expect, as it happened with computer diffusion, that smartphones will be picked up by immigrants in Europe paralleling, and in many cases anticipating the take-up growth of these devices within the whole population in each European country.

Additional figures on the development of the mobile phone market in Europe and worldwide are available and will periodically be updated in MASELTOV's exploitation plans.

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### 3. ICT-MOBILE BASED INITIATIVES FOR IMMIGRANTS INTEGRATION

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In chapter 2 we saw that mobile phones, including smartphones, are being widely adopted in the overall population in Europe and often even more rapidly among immigrants. In the past, many people had to overcome barriers to use digital services, especially those available on/through the Internet, because a computer was needed (which was expensive, difficult to use and to carry around etc.). Today, many barriers seem to be removed or reduced by the new tools, especially smartphones and tablets, which meet the favour of both established and new digital users.

Currently, the diffusion of most digital devices and Internet access is undoubtedly a primarily user-driven, market-led process involving all segments of the local and global society. This process, however, is characterised by two major shortcomings that were already mentioned as motivations of digital inclusion policies. First, so called “access divides” associated with demographic features (especially age), socio-economic condition (such as education and employment) and other factors still exist, even though they have been generally falling. Table 11 effectively shows existing access divides (in being connected to the Internet) within the immigrant population selected and surveyed by the ICTEGRA study in three EU countries. Similar figures concern the whole population in many countries in Europe and elsewhere. As access divides are diminishing, so called “second-level” digital divides are coming to the fore. These broadly refer to big differences in individuals’ digital competence (i.e. the capacity to make effective use of ICTs) which ultimately determine who and how much can really appropriate and benefit from technology use. The determinants of second level digital divides are often the same as those of access divides.

The second shortcoming of current market-driven ICT diffusion is the fact that digital applications and services typically target the richer and mainstream segments of society, and much fewer address the weakest and marginal segments of the population in socio-economic and cultural (including linguistic) terms. Socio-technological evolutions are opening up ever more opportunities for the disadvantaged groups to compensate for these market failures through what could be defined as “self-help” solutions, e.g. user-produced content and services, peer-to-peer exchanges etc. A good level of digital skills and competence and an amount of economic and/or social capital are still needed for this, and technology as such cannot deliver them if they are lacking.

In order to fight digital divides and to apply ICT also for the benefit of disadvantaged people, eInclusion policies and many bottom-up initiatives have been launched by public and private (primarily non-profit) actors throughout Europe. As we have seen, their aims are to promote a wider and deeper ICT use among disadvantaged people, to avoid adding new exclusion factors and to exploit ICT to improve service delivery and other aspects that can enhance their quality of life.

In this chapter we present a number of such projects and initiatives that make use of mobile ICT devices/services to enable and support immigrants’ integration, especially in the three priority domains of MASELTOV project –i.e. learning, information delivery, social participation and community building, with the underlying concern for labour market integration. A few projects that seem particularly relevant for the actions planned by MASELTOV have also been included, even though they do not make use of ICT.

Given the expected and largely confirmed dearth of documented initiatives of this kind, we have not been more restrictive in selecting projects for this report. The initiatives listed below therefore include those already finished as well as others that are still ongoing and even new;



they are carried out by different types of actors; they are mostly European projects, i.e. co-funded by EU programmes and carried out by partners in different countries, but they are also funded and developed locally; and they have pan-European, national, regional or local scope. The large number of EU projects in this chapter reflects the surveying method adopted (see below). Our exploratory research suggests however that many (if not most) innovative projects using mobile ICT devices and services for integration-related purposes are indeed being funded by European programmes. Even the few large-scale initiatives carried out at national level specifically on mobile-learning (addressing immigrants and ethnic minorities along with other population sectors) were initially supported by EU funding. This is the case of the EU IST m-Learning project (2001-2004), coordinated by the Learning and Skills Development Agency in the U.K. which is possibly the world's largest and most diverse implementation of mobile learning and later developed into the MoLeNET initiative. EU support was also important for the numerous and early experiences with mobile phones in second language education carried out by VIFIN in Denmark. Both these experiences are introduced briefly in this chapter and are further described in Appendix 1.

### Method

The identification of projects has mostly been based on desk and web research.

Desk research looked at recent reports of good practices and projects in general concerning the use of ICT (including in some cases mobile phones) for/by immigrants and ethnic minorities in Europe. In particular, the following reports were used:

- the inventory of good practices identified by the IPTS survey (Kluzer et al., 2008) and by the Bridge-IT project (Hachè et al., 2011) already discussed in the previous chapter;
- the ICT-based projects and services for second language learning by adult immigrants identified in the IPTS report (Kluzer, Ferrari, & Centeno, 2011).

Additional, more recent ICT-based projects using mobiles to address immigrants' integration have been identified through the following European Commission's sources:

- under the *Lifelong Learning* programme, the projects compendia for Comenius (2010, 2011); Grundtvig (2010); Key Action 2 Languages (2010, 2011); Key Action 3 ICT (2010, 2011);
- projects awarded by the Community Actions under the *European Fund for Integration* of third-country nationals (from 2006 to 2010).

With respect to web-based research, three important online sources of relevant cases and initiatives have been:

- the European Web Site for Integration (<http://ec.europa.eu/ewsi/en/>);
- the ePractice web site devoted to e-government, e-health and e-Inclusion ([www.epractice.eu/](http://www.epractice.eu/)), also promoted by the European Commission;
- the web site of the European Network Against Racism ([www.enar-eu.org/](http://www.enar-eu.org/)).

Besides gathering basic information about the projects from these sources, in many cases, a contact was also established by phone or email with the project coordinator. This was done in order to gather additional information and clarifications about the identified project; to provide information on MASELTOV to potentially interested interlocutors; and to start assessing the potential for further exchange and networking activities in view of MASELTOV's dissemination and exploitation tasks. The experts workshop organised in Barcelona on April 2012 witnessed the participation of several researchers and practitioners identified through this process (see Appendix 2). Information about relevant projects which emerged during that workshop has also been included in this report.

Given the method and sources used to produce this report, project descriptions vary. For all projects some basic information is provided: country and name of the coordinator, start/end dates, project website and a short description. For those (few) projects which are already described and analysed at length in other easily available reports, we provide the link to that source. For some projects presented at the Barcelona workshop, specific contributions have been requested from the authors and are available in Appendix 1. For all other projects, we provide any additional information that could be collected online and from exchanges with project coordinators during the preparation of this report. The URLs of the cases presented below were checked for broken links and updated in June 2013.

The projects are grouped into the three categories of MASELTOV's thematic priorities.

### 3.1 PROJECTS ON LEARNING IN GENERAL

Learning is a domain where mobile phones and devices have been tested now by over a decade or longer. The potential of mobile learning has been explored in particular for re-engaging in education young people at risk of dropping out of school and disadvantaged youth in general,<sup>21</sup> but also to address adult learners, including those with a migration background.

*The four cases presented below concern one of the largest mobile learning experiences in the world (the MoLeNET programme in the U.K.) and three smaller EU-funded projects which have investigated and exploited from different angles the potential of mobile learning with adult immigrants.*

#### MoLeNET

[No active web link for this project available]<sup>22</sup>



Carried out during 3 years, 2007/8, 2008/9 and 2009/10, and coordinated by LSN (Learning and Skills Network), the MoLeNET programme involved approximately 40,000 learners and more than 7000 staff, in 104 further education and specialist colleges and 37 schools. The Learning and Skills Council (now Skills Funding Agency) and consortia led by Further Education colleges have together invested over £16+ million in MoLeNET.<sup>23</sup>

An important aspect of MoLeNET has been the attention placed upon the development of a support and evaluation programme which has accompanied the project's implementation. Advice, knowledge sharing and discussions based on MoLeNET experiences have been made available online for anyone interested (see however footnote 22).

Work-based and vocational learning featured prominently in each MoLeNET year. MoLeNET addressed a wide and diverse range of people, including young people and adults who are ESOL learners: 'English for Speakers of Other Languages' and means courses of English taught to people whose first language is not English but who live in an English-speaking country and need English to communicate in their daily life. A detailed account of MoLeNET projects and results concerning ESOL learners is provided in Carol Savill-Smith's contribution in Appendix 1 to this report.

#### ALPHA-BETA - NEW METHODS FOR SERVICES TOWARDS ILLITERATES IN ADULT EDUCATION

[No active web link for this project available]



"Alpha-Beta" was a EU Socrates Minerva project which ran in 2006-2008, coordinated by IEIE - International Education Information Exchange e.V. in Stuttgart, Germany. The project focused on alternative forms of learning and acquisition of competences for adult illiterates based on their learning needs, and thus not necessarily concentrated on the ability of reading and writing.

<sup>21</sup> For a general discussion of ICT potential for the inclusion of youth at risk see (Haché et al., 2010). Specific experiences with the use of mobiles are illustrated in (Wolf & Rummler, 2011) and (Unterfrauner, Marschalek, & Fabian, 2011).

<sup>22</sup> The official website <http://www.molenet.org.uk/> was suspended during the preparation of this report in Spring 2012. See Final Note in Carol Savill-Smith's contribution in the Appendix.

<sup>23</sup> Participating colleges and schools made in-kind contributions of staff time and a financial contribution equivalent to 20% of the capital provided for their project to fund the LSN Support and Evaluation programme.



The project sought to address the challenge of the growing number of EU citizens having problems with reading and writing. Depending on statistics, between 7 and 11 percent of all Europeans have these problems. Many adult illiterates attend literacy courses but without success. In a world of pictograms, signs and commercial symbols, many illiterates create their own system of written communication. Adult education providers often exclude illiterate adults due to the fact that most adult training courses rely on written and printed information. Alpha-Beta used mobile phones and specific classroom modules to provide adult education serves to illiterate learners. Since 95 percent of all illiterates own a mobile phone, this channel was deemed a good one to reach this target group and to offer them innovative and challenging learning materials.

Alpha-Beta developed 6 modules for classroom learning in groups and 9 learning packages for use with mobile phones.

The 9 mobile modules concern: 1) Prevention of smoking; 2) Healthy living - food and nutrition; 3) Number learning; 4) Prevention of sexual diseases; 5) Word learning; 6) Emergency calls via mobile phones; 7) Family-school relations; 8) Cooking and cooking instructions; 9) Mobility.

The mobile modules consisted of small software packages that could be installed on mobile phones for direct training and learning whenever suitable for the individual learner. The software was designed so that the icon or image of the module would automatically show on the screen of the phone and self-extract. However, this depended on the operation system and individual configuration of each mobile phone (the tools were designed for and tested on Nokia phones with Symbian operation system). Thus adults with problems in reading and writing needed assistance to install the software packages on their mobile phones. A limitation of the software packages was that as they were Java-script based, so they only ran on Java-enabled phones. At the technical level, Alfa-Beta solutions are acknowledged to have been overrun by newer devices and technologies such as the iPhone and touchscreen interfaces

From the point of view of piloting users, however, some applications were very much appreciated. In particular, one tool with a comic-like picture story on sexually transmitted diseases was very popular. On the other hand, a tool which aimed to help illiterate immigrant women during grocery shopping did not work too well, since the operation of the phone (pressing specific buttons) turned out being too complicated for this target group.

#### **ENSEMBLE - EUROPEAN CITIZENSHIP LIFELONG MOBILE LEARNING**

<http://www.ensembleproject.org/>

ENSEMBLE was a project under the European Lifelong Learning Programme implemented in 2009-10 and coordinated by the Educational Technology Laboratory of the Department of Education at the University of Florence. The project explored the potential of mobile phones and MP3 devices to enable mobile learning and integration processes, with training modules related to topics of European citizenship, labour rights etc., delivered in L2 at an elementary level (CEFR levels A1-A2). The



trials took place in Prato (near Florence, Italy) and in Yvelines District, France. The target group was made of immigrant school students and their parents: in Italy primarily from Chinese origin, in France mostly second-generation immigrants from Africa, Turkey and other countries. A detailed account of the ENSEMBLE project and its results is provided in Maria Ranieri's contribution in Appendix 1 to this report.<sup>24</sup>

<sup>24</sup> A booklet with the project's main results in three languages (EN, FR, IT) is available for download at <http://www.ensembleproject.org/modules/wfdownloads/viewcat.php?cid=78>

## MYMOBILE: EDUCATION ON THE MOVE

<http://www.mymobile-project.eu/>



MyMobile was a Grundtvig mobility project that ran between 2010 and 2012, coordinated by Medien+bildung.com, the not-for-profit company founded by the Media Authority of Rhineland-Palatinate in Germany.

The aim of the partnership was to exchange and discuss existing approaches and methods in mobile learning and to develop overall guidelines for mobile learning in adult education within the context of lifelong learning. These general principles were applied and tested in diverse learning scenarios such as with immigrants, multigenerational houses, seniors, media education support schemes (which are of growing significance for all types of educational institutions), in integration work with socially marginalized groups, in museum programmes, etc.

A description of this project is also provided in Maria Ranieri's contribution in Appendix 1 to this report. Specifically, she illustrates the activities carried out in Tuscany with adult disadvantaged learners to develop their digital skills to promote self-representation and increase personal visibility for job search and placement.

### 3.2 PROJECTS ON LEARNING THE HOST COUNTRY/SECOND LANGUAGE (L2)

Before illustrating the projects of this section, it is important to note the existence of some increasingly popular social networks specifically dedicated to teaching and learning languages through informal approaches and peer tutoring, such as busuu (<http://www.busuu.com/>) – created by one of MASELTOV partners - Babbel (<http://babel.com/>), Livemocha (<http://www.livemocha.com/>), My Happy Planet (<http://www.myhappyplanet.com/>), and Palabea (<http://www.palabea.com/>). These social networks are gradually introducing mobile-based services (already available for busuu and Babbel) and they are certainly used also by immigrants. None of them seem to have yet developed specialised services for these users and no statistics as far as we know are available to assess the quantity and quality of immigrants' activity on these networks.

*The two projects below have promoted the use of mobile phones for second language learning closely linked to specific professions and/or directly in the workplace.*

#### MYVOCAB FOR L2 LEARNING IN THE MUNICIPALITY OF STOCKHOLM

[www.stockholm.se/Arbete](http://www.stockholm.se/Arbete)



The Labour Market Division of the Municipality of Stockholm runs the Recruitment program which started over a decade ago with the aim of increasing the frequency of employment among refugees and immigrants and thereby create better conditions for integration, reduce the city council's costs for economic assistance and help employers find right labour. To achieve these aims, the department identifies sectors and companies with recruitment needs, matching these to suitable immigrants that are given vocational/business language and the necessary knowledge regarding Swedish society and the work climate, also by tailoring relevant vocational programmes in partnership with employers. From May 2000 to December 2010 over 1500 persons had gone from welfare to supporting themselves thanks to this Recruitment program.

After positive results from earlier pilot projects, the Municipality decided in 2008 to use mobile devices to provide on the move, on the job language training to the program's participants. This was done with MyVocab, a tool which can be used online and on java-enabled mobile phones. This tool is also available on a commercial basis to any customer. The tool offers drilling of relevant vocabulary, dictionary, listening to words spoken in Swedish to practice pronunciation and exercises adapting to the learner's abilities and their expected evolution. In practice, MyVocab works as a dictionary where the user can look up words that she may not understand in order to facilitate communication with co-workers and supervisors. In Stockholm, the Municipality has an agreement with the mobile phone operators that includes free data traffic for the program's participants.

Participants to the Recruitment program highly appreciated the use of the mobile solution. Most of them have a strong interest in finding a job and any tool that helps to speed up the process in learning a new language is welcomed. Since 2008, 150 of participants to the Recruitment program have used this mobile learning solution.

MyVocab has later been used also in another project of the same Municipality's division called Language Support For Newly Arrived Refugees (partly funded by the European Refugee Fund). This project invested 150,000 Euro so that MyVocab company could develop the tool to a more advanced version which now supports also scenario based learning. Along with the mobile learning opportunity, the project provided a basic computer introduction course (many of the refugees are computer illiterates) and bilingual language supporters who introduced and taught both the computer course and the use of MyVocab in their mother tongue.

It is important to notice that both the Recruitment program and this second project provided a nationally recognized certification of informal language acquisition thanks to an agreement with the Open College Network.

#### MOBILE-ASSISTED LANGUAGE LEARNING AT THE WORKPLACE, DENMARK

<http://www.vifin.dk/index.php/da/>



Videnscenter for Integration (VIFIN, Resource Centre for Integration) was established in 2001 by the Vejle Municipality to facilitate the integration of immigrants into the Danish society. Its flagship program developed over a decade involves the teaching of Danish as a second language using several digital platforms. Based on this experience, VIFIN has established an e-school for Danish L2 education. The Centre reaches over 5,000 immigrant students through a network of local and national public and private organisations, learning institutions and NGOs.

Mobile phones have been integrated into teaching of Danish L2 through various projects. Mobidic is a mobile dictionary with words, phrases and translations for immigrant workers in the transport sector, the construction industry and social health services. Other VIFIN m-learning projects include the Mobile Language Learning Lab and MobiSticks a 2D barcode and location-based m-learning project focussing on contextual (on location) everyday and workplace learning. A detailed account of the VIFIN's mobile learning projects, including Mobisticks is provided in Anne Charlotte Petersen's contribution in Appendix 1 to this report.

*The next projects have developed different tools and approaches –often relying on authentic material- to support second language learning by adult learners with different education background.*

## NT2 NIEUWSLEZER (L2 NEWSREADER), NETHERLANDS

<http://www.nt2nieuwslezer.nl/>



This tool developed by Edia (Educatie Technologie) and distributed by BOOM publishers in the Netherlands has been designed for individual use in informal contexts (it is mainly used in libraries) with no strict learning path. Originally based on a PC with Internet connection, there was a planned evolution towards mobile phone access. The tool's concept stemmed from research on vocabulary acquisition from reading newspapers which showed that reading about thirty articles brings substantial improvements. Using the Adaptive LANguage Engine (ALANE) toolkit (<http://www.edia.nl/en/alane>) an initial test measures the learner's L2 proficiency and current vocabulary. The learner then chooses a preferred reading topic and the system selects and downloads the latest online news on that topic, matching the learner's L2 capabilities. The news items are then used in vocabulary exercises, such as fill-in-the-gap and translations. Brief explanations and translation in L1 of new, unknown words are given. Besides gaining a broader vocabulary, the other main benefit is an enhanced and up to date knowledge of Dutch life and events. This tool won the Ministry of Interior's award of 10 best public sector innovations in 2009.

A case study on the use of *NT2 Nieuwslezer* in a Dutch college (Driessen, van Emmerik, Fuhri, Nygren-Junkin, & Spotti, 2011) revealed that the teacher very much appreciated the automatic updating of articles for the learner (saving her preparation time) and the gathering of individualised teaching material. However, according to the teacher the matching of content to the learner's proficiency level was not always right (usually it was too difficult) and individual use was seen as inadequate to develop reading skills, as this would also require spoken interaction (articles were not talked about in the class). Besides, the teacher had only partly understood this tool's specific functions and aims, and found it difficult to incorporate it in her lessons and use it for different learners levels. The interviewed students confirmed the only partial satisfaction about the news provided (they had very specific expectations about technical content), but confirmed the tool's value in expanding their vocabulary and in supporting their autonomy in L2 learning. However, this seems closely correlated with these specific users' high education background and digital proficiency.

Another service which uses daily news as the basis for reading and other exercises in language learning is offered by US-based <http://voxy.com/>. This service only teaches English and addresses Spanish- and Portuguese-speaking learners. It offers tutoring support via Skype and is available for Android and iPhone devices.

## ANSPEAR'S MOBILE PHONE BASED LEARNING ESOL, U.K.

<http://www.anspear.com/projects/>; <http://www.anspear.com/projects/dit/>



This project, promoted by the Government's Digital Inclusion Team (DIT), was carried out by the City of London in partnership with Anspear over twelve weeks, between January and April 2010. Two specific groups of learners were involved: 30 predominantly Bangladeshi residents of a housing estate who at the time were not undertaking any formal tuition and often lacked the confidence and the basic skills to sign up for classes; and 14 learners also mostly from Bangladesh enrolled on a formal ESOL (English for Speakers of Other Languages) course. The objective was to explore the impact of the mobile learning application in both formal and informal settings.

Learners were provided with interactive English language materials – word cards, audio clips, videos and word games that run on the memory card of a common mobile phone. The learning content was enhanced with photographs of the local community, and tailored to the language requirements of participants. Learners could also use the mobile phone to record and listen to their voice when speaking in English (this proved very important for some of the informal learners who had never tried to write or speak in English before).

Learning software on the mobile phones tracked the participants' usage and progress, mostly through logging data (what used, when, for how long). Questionnaires were distributed by an independent evaluator at the outset, mid-point and close of the project to provide an insight also into the broader social outcomes of the initiative. Results differ on many of these aspects between formal and informal users.

The increase in confidence was greatest among the informal learners with the percentage who were 'confident' or 'very confident' at writing in English, doubling from 18% to 36% over the period. This result, in the absence of other formal learning, was solely attributable to the mobile phone based resources. The 'very confident' in writing and understanding other people also doubled from 11% to 22% among the formal learners. These however made a more intense and varied use of learning resources, indicating that the combination of formal tuition, examination incentives and encouragement from their teachers and peers stimulated their use of the materials.

Other key findings include:

- Very strong interest and participation of the target group, as the project team could not meet the demand among the informal learners despite doubling their number;
- Significant additional learning in between classes (at least 2-3 times a week on average, with a third of participants accessing the resources daily) and outside the normal working day, esp. evenings. Much of the mobile learning was 'bite size' averaging 10-15 minutes and easily slotted in around other activities;
- All participants shared the phone with their families to teach their young children basic English, to be helped by the children to use the phone and understand its features, or for other purposes. To actively encourage such family learning, the ability of the phone to support multiple users was later added;
- The more interactive, game-like exercises were clearly more popular, along with spelling practice;
- There was a clear need to fine-tune the different levels of content downloaded on the phones to the individual learner (e.g. supporting the transition to basic ESOL, or to a higher level);
- The mobile phone resources were considered an excellent aid to formal teaching by the tutors.

Broader social outcomes were also measured and found higher for the formal learners:

<b>Statements on impact</b>	<b>Formal learners</b>	<b>Informal learners</b>
Increased their self-confidence.	100%	50%
Made new friends and had an enjoyable time	90%	55%
Felt more confident to apply for jobs	80%	20%
Want to undertake further education and training		36% <sup>25</sup>
More likely to access public services	70-80%	
More likely to take part in other community activities	40%	20%

<sup>25</sup> In fact, 25% of informal learners later registered to an ESOL course.



In subsequent projects, Anspear has extended mobile learning to Latvian, Lithuanian and other Eastern European arrivals; to minority European language courses; and to young offenders and other targets.

### **SIMOLA – SITUATED MOBILE LANGUAGE LEARNING**

<http://www.simola.org/>

<http://itrg.brighton.ac.uk/simola.org/lingobee/index.php>

SIMOLA was a project funded under the European Lifelong Learning Programme which started in November 2010 and ended in October 2012. SIMOLA created mobile and web-based tools and services that enable learners to collect, annotate and share language- and culture-related content with their mobile phone, via a web site, or through a widget on their preferred social network. Based on previous research with international students in the U.K., the project explored across six partner countries in Europe<sup>26</sup> how these tools can support formal and informal language learning with two different types of learners: EU mobility students (Erasmus) and adult immigrants (Grundtvig).

The collaborative language learning application developed by the SIMOLA project is Lingobee which consists of a mobile app (for Android phones), a web site and a range of cloud services to



manage and share content found in everyday life. Lingobee also supports learner communities through user profiles, user groups, content ratings and other social networking functionality that help to make language learning more collaborative and help to overcome isolation in a foreign country.

At the MASELTOV Barcelona workshop, the presentation of Lingobee led to a discussion of the complementarity of this service to the online language learning community with over 7 million users run by the MASELTOV partner Busuu.com. According to Simola's technical partner Marcus Winter,<sup>27</sup> Busuu's strength lies in partnering language learners with native speakers and providing tightly focused learning materials for its users relating to specific contexts and situations. While the system implements a traditional transfer model of learning based on instruction and practice, it is very popular with learners due to the direct interaction with native speakers, who correct exercises and are available for chats.

Lingobee, by contrast, is based on social-constructivist learning theory. Instead of completing ready-made exercises, Lingobee users actively collect and annotate language- and culture-related content they encounter in their daily lives. Content is shared in user groups, ensuring relevance to other learners and honouring the fact that dialects and customs can vary greatly between regions in the same language space.

Winter thus hinted of the potential benefits of combining these two approaches. Busuu could benefit from the integration of in-situ user-generated content, to scaffold the interaction between learners and native speakers and to inform the creation of relevant and authentic learning materials. In return, Lingobee could benefit from the involvement of native speakers to clarify meanings and correct mistakes, and from structured learning materials to broaden the learning from user-generated content.

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<sup>26</sup> The countries are Hungary, Italy, Lithuania, Netherlands, Norway and the UK. The system is being tested also in Japan.

<sup>27</sup> Winter's views reported here have been published in his April 30 post on <http://lingobee.wordpress.com/>.

## LANGO - LANGUAGE ON THE GO

<http://www.lango.eu/index.php/en/>



This is another Lifelong Learning project started at the end of 2011 and due to finish in late 2013. It is coordinated by Euroinform Bulgaria and brings together organizations also from Cyprus, Ireland and Malta.<sup>28</sup>

The project is aimed at adult learners (18+) of Bulgarian, Maltese, Greek and Russian as foreign or second languages: people participating in EU mobility for study and work; immigrants; other people who wish to develop their language

skills in the target languages for personal reasons (cultural interest, friends, business contacts, etc).

The project has developed 365 “nano” lessons and small language chunks that are easy to learn and absorb. These should bring learners from CEFR level A1 to A2+ using 10 minutes of short interactive activities every day. The lessons are delivered on a daily basis via web based and mobile based platforms. Part of the entertaining learning activities (e.g. word search game) are provided as Facebook widgets. Because learners can process the language on the go, at any time and place on more than one platform (online and mobile) this approach is anticipated to allow a high degree of flexibility.

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<sup>28</sup> The Marathon Group ([www.marathon-group.net](http://www.marathon-group.net)) in Ireland is the main technical partner. AcrossLimits ([www.acrosslimits.com](http://www.acrosslimits.com)) from Malta is the other expert partner in educational e-solutions.

### 3.3 PROJECTS ON LABOUR MARKET AND BROADER ECONOMIC PARTICIPATION

As we have seen, many ICT-based learning projects addressing adult immigrants ultimately aim at improving their employability or current employment situation by enhancing their second language proficiency in general and/or related to a specific job and by developing new knowledge and skills valuable for the labour market. ICT-based projects addressing young people at risk –many of them from a immigration background- often aim to re-engage them into education, vocational training and further education, or at least to enable informal learning processes, again with the ultimate goal to increase their chances of finding a job (see footnote 21).

As already mentioned however, there are much fewer ICT-based projects which develop services directly addressing immigrants' labour market (job searches, competence assessment and accreditation etc.) and broader economic participation (financial inclusion, business creation support etc.). Only a small number of these are implemented upon mobile devices.

*The two initiatives below provide examples of solutions designed for immigrant customers which use mobile phones to deliver job information and enable international money transfer. The service by Société Générale is one of the very few examples of private services identified in our research.*

#### ONLINE JOB CENTRE FOR FOREIGNERS, CZECH REPUBLIC

[http://portal.mpsv.cz/sz/zahr\\_zam/prociz/vmciz](http://portal.mpsv.cz/sz/zahr_zam/prociz/vmciz)



This initiative, developed since 2004 by the Ministry of Labour and Social Affairs, is the centralised website for online job seekers focused on immigrants in the Czech Republic. The Centre also provides other services such as on-line information about the Employment Act, on-line posting of individual applicants' CVs and text messages sent on mobile phones every Sunday to registered users with their five most suitable job offers. This service was developed because most of immigrant users had a mobile phone, but not all of them had access to the Internet.

One of the most substantial problems for this service has been the lack of job offers, especially for skilled jobs. Most of the job offers have been for unskilled occupations on the secondary labour market and some of them were found to be unreliable offers.

#### VOTRE BANQUE ICI ET LA-BAS, FRANCE

[https://particuliers.societegenerale.fr/clientele\\_internationale/votre\\_banque\\_ici\\_et\\_la\\_bas.html](https://particuliers.societegenerale.fr/clientele_internationale/votre_banque_ici_et_la_bas.html)



Immigrants' needs with respect to banking services are mostly standard, but they have a number of particular needs with regards to their country of origin. These focus on money transfer, property access and the fear of dying far from home, with its associated concern that their family might lack the financial means to repatriate the body. In order to address these needs, which were identified through internal customer surveys, Société Générale developed four specific services from 2005: a) the possibility to freely open a bank account in the home country without traveling back home: a home-banking service (Internet, call centre, phone, fax) is generally offered to the customer so that they can at any time check on the situation of their account abroad. b) i-Transfert, a method to transfer money through mobile phones with some of the lowest transaction costs on the market. c) The possibility of obtaining a mortgage



in order to finance projects in the country of origin without travelling there. d) Maetis, insurance for body repatriation.

Since mobile phone ownership rate was around 80% among immigrants living in France already a few years ago, a service such as i-Transfert® that can be activated in French, English or Arab has been very popular. Compared to the early version, users requested to have confirmation that a transfer has been correctly executed and this led to implement an option to have the acknowledgment of receipt sent by SMS.

*The next initiatives are based on computers and Internet services, not mobile phones. They have developed training activities and specific tools to help first and second generation immigrants to know more about and understand how to “navigate” in the job market, to create a competence portfolio for potential employers and to better match their competence with exiting job profiles and offers. These projects were selected given the MASELTOV project’s interest in supporting also immigrants’ employability.*

#### KC4ALL - KEY COMPETENCES FOR ALL AND THE EMPLOYABILITY TOOLKIT

<http://www.keycompetences.eu>



**Employment Toolkit**  
Key Competences For All

This was a Lifelong Learning project run between 2009 and 2011 born from a request by many telecentres networks across Europe<sup>29</sup> to strengthen their capacity to provide employability services to their customers, many of them immigrants. A survey carried out at the beginning of the project found that 71% and 55% of telecentres users in the U.K. and Belgium respectively were foreign born. The survey also showed that half of the users were looking for a job (up to 86% in Belgium).

These customers need support for the assessment of own skills and interests, job guidance, online job seeking, CV preparation and assessment, interview skills, e-communication with potential employers, resources for self-employment and entrepreneurship. They also need training: access to vocational training opportunities, to training programs for unemployed people, help for students with disabilities, training on literacy and numeracy for those lower skilled, certifications like the ECDL (European Computer Driving Licence) and other proofs of qualifications. Finally, they need support on personal and social issues linked to employability (child caring, online banking, at distance communication, etc).

Several online and blended resources already available in the organizations participating to the project were identified and used as a basis for the development the Employability Toolkit, the main product of the project.

The KC4all project developed a new solution for the delivery of employability-related content and guidance to those at a risk of exclusion based on a constructivist learning approach and a Web 2.0 solution. The key competences developed by the toolkit are digital skills, learning to learn, social and civic competencies and sense of initiative and entrepreneurship.

The kit consists of on an Employability Toolkit for end users, a handbook for facilitators and guidelines for new actors entering into the field of employability support.

The toolkit was built collaboratively in an open source application (WordPress) and was tested in 5 countries, where 10 facilitators (per country) were instructed to use the tool with 5 end users each (for a total of 50 facilitators and 250 end users).

The toolkit is based on an itinerary structure that allows users to profit, no matter their previous level of digital skills. Each of the itinerary’s three steps combines e-learning sessions, additional learning materials, online resources and workshops. Users can choose a profession according to their skills and interests, learn to apply online for a job, improve

<sup>29</sup> The association of telecenters networks in Europe can be seen at <http://www.telecentre-europe.org/>

his/her ability to use office software, or promote him/herself using Web 2.0 tools and presentation software.

The open source platform was chosen for easily adding new tools and languages, scaling up the toolkit and incorporating additional external resources.

#### **SURFEN ZUM JOB, GERMANY**

<http://www.surfen-zum-job.de>



The “Surfen zum Job – Digitale Chancen auf dem Arbeitsmarkt” (Surfing to the Job - Digital Opportunities on the Labour Market) project was carried out in Germany in 2005-06 and coordinated by Stiftung Digitale Chancen (Digital Opportunities Foundation).<sup>30</sup> The training package and the website created by

the project have however remained active and are still used.

While open to all young people, Surfen Zum Job addressed particularly young immigrants (in Germany, around 20% abandon school before graduation) and the youth and social workers who assist them. The training offered by Surfen Zum Job enables social workers to use a Virtual Job Market and to train their young clients in exploiting the Internet for job searches, enhancing their digital skills in the process. The young people have the possibility of publishing their profile, describing their non-formal competences and soft skills as well as their formal education level. The initiative’s website provides general information on the labour market and other services as well as acting as an exchange platform for the participants in training. To cater for the needs of the two biggest groups of immigrants in Germany, information is provided in Turkish and Russian, both online and offline (leaflets, etc). Also noteworthy is the 21-step guided tour through online job search, especially designed for the needs of inexperienced users.

The project has been particularly appreciated by social workers. Although they are usually well aware of their clients’ competencies, they are often less acquainted with the use of ICT. The training equips them with the tools to do a successful job search online but also leaves them with enough space to develop their own strategies to make their young clients interested in setting up an online application or a job search profile on the most relevant platforms.

#### **EPORTFOLIO SKÅNE FOR COMPETENCE VALIDATION<sup>31</sup>**

<http://www.eportfolioskane.se/>

This project is very much related also with L2 learning. We include it here because its main focus is competence validation which is crucial for employment purposes, and enhanced L2 proficiency can be seen as a by-product of the process.

The City of Malmö’s Centre of Validation of the Education Department develops methods and tools for the validation of vocational skills in cooperation with public authorities and other organisations. With the project ‘Making newcomers competences visible in Skåne’ the Centre decided to support the preparation by refugees and other immigrants of a personal qualification portfolio that could enable them to get their competences validated.

Preparation of the portfolio may take from 3 to 6 weeks and is done both in group and individually as a part of Swedish language teaching during the introduction program for new

<sup>30</sup> Stiftung Digitale Chancen was founded in January 2002 in Berlin by AOL Germany and the University of Bremen. Co-founders are Accenture and the Burda Foundation. The Federal Ministry of Economics and Technology and the Federal Ministry of Family Affairs, Senior Citizens, Women and Youth have taken on the patronage. The aim of the foundation is to make people interested in the Internet and to support them with their steps into the digital world.

<sup>31</sup> This case is drawn from (Kluzer et al., 2011)

immigrants. Over 1000 people, most of them teachers of Swedish have been trained to act as coaches in this process.

For portfolio creation, learners have to answer questions such as: What have I done? How did I carry out my work tasks? What responsibilities did I have? What skills were required? And so on.

The first experiences showed that the process of creating the portfolio was nearly as important as the end product. By adding up qualifications to the CV, a clearer picture of the learners' competencies develops. The individual increases insight about him/herself, self confidence and the ability to communicate his/her skills. Learners become empowered by acknowledging what they know and by formalizing tacit knowledge and unrecognized education titles. Careers counsellors, job centre staff and prospective employers gain a better understanding of the candidate and his/her potential. One third of the employment officers stated that the programme made it easier to match job seekers with employment offers.

L2 learning is also enhanced as the portfolio preparation entails L2 skills to describe a learner's abilities, education background and work experiences which are also crucial for other purposes (e.g. job interview).

Monitoring of an earlier pilot project showed that 48% of respondents said that portfolio preparation created better conditions to learn relevant Swedish terms; roughly 1/3 said it had a positive impact on their general motivation and on their Swedish language skills.

Since 2009 the municipalities of Skåne region participating in the project are connected with the ePortfolio management system, a web-based solution that supports skill validation with help texts translated into five languages. The ePortfolio system enables learners and employees to record, edit and share employment related information including competencies, interests, goals, achievements, reflections, current and planned personal and organisational development activities, personal media and content.

From October 2009 portfolio preparation has become a compulsory part of SFI courses in Malmö and from 2010 in almost all 33 municipalities of Skåne region.

#### **MATCH PROJECT FOR IMMIGRANTS' EMPLOYABILITY**

<http://match.cpv.org>

While considering the issue of competence validation with immigrant job seekers, it is worth



mentioning the project "MATCH - Informal and non-formal competences matching device for migrants employability and active citizenship" funded under the Grundtvig programme by the European Commission which ran from 2010 to 2012. Coordinated by Fondazione Giacomo Rumor Centro Produttività Veneto – CPV

(established by the five Chambers of Commerce from the Veneto region in Italy) the objective of the MATCH project was to support the recognition of skills, competences and qualifications of immigrant workers in Europe by the creation of a web-based functional tool (the LO-MATCH software platform) connecting the immigrants' competences acquired in formal, non-formal and informal contexts to occupational profiles and to companies' labour demand.

In order to overcome the lexical and semantic differences in the descriptions of qualifications, résumés and job profiles, the project developed and tested a web platform which exploits semantic technologies. The platform allows immigrants to annotate their knowledge, skills and competences in a shared format. The resulting knowledge base is then used to enable the automatic matchmaking of job seekers' abilities with companies' needs. The platform can additionally be used to support students and workers in the identification of their competence gap with respect to a given education or occupation opportunity, in order to personalize their further training.

### 3.4 PROJECTS ON SOCIAL PARTICIPATION AND INCLUSION

One of MASELTOV's three priority areas is "social networking and community building", i.e. enhancing social inclusion by avoiding exclusion of individuals and contributing to social cohesion in local communities. There are many dimensions under these headings and many pathways to achieve these goals. In this section we provide a varied range of examples where the use of mobile phones and social media by socially disadvantaged people, mostly with an immigration background, is supported and enhanced in ways which aim at making their life easier, starting by reducing the very cost of mobile phone use. Other common aims are to improve the immigrants' possibilities of expression and having their "voice" heard. These usually result from collective efforts which rely upon and reinforce social participation. The last two cases do not address immigrants, but are very close to MASELTOV's objectives: one is a mobile application to facilitate the move from one city of residence to another in France and in Europe; the other exploits geo-location services to facilitate social interaction in large cities' neighborhoods.

*The first three cases are concerned in different ways with using mobiles phones to avoid the "exclusion" of immigrants. The Téléphonie Solidaire project in France tackles the issue of the high or unsustainable expenditure stemming from mobile phone usage among destitute people. Dualia in Spain uses a mobile-phone based system to provide translation services at a distance, enabling communication especially by health and social workers with immigrants who speak too little or none of the receiving country's native language. Digital Undoc addresses the needs of undocumented young people in the U.K. and is interesting both for the content of proposed solutions and for the approach followed to identify them.*

#### TELEPHONIE SOLIDAIRE, FRANCE

<http://emmaus-defi.org/nos-actions/la-telephonie-solidaire/>



This project is carried out by the non-profit organisation Emmaus Le Défi in Paris and targets poor and socially isolated people. Currently, 80% of its customers are immigrants.

The project has three parts. First, it gives the user the possibility to purchase a rechargeable SIM which offers a discounted "solidaire" mobile phone rate<sup>32</sup> (the user's phone number can be kept), once registered into the program. Second, training and guidance is provided to users about how to minimize their mobile phone expenses (which often reaches 20- 50% of their monthly budget). Third, users can be accompanied in a personal development project which concerns or exploits the mobile phone use by social inclusion actors from the public or private sector who are willing to join the program on a voluntary basis and also help promoting the initiative.

Access to the program is limited in time to prevent dependency. The pedagogical approach was informed by questions and issues raised by users who contributed through a qualitative questionnaire, which then led to the design of the subsequent phases of the project.

#### DUALIA – TELETRANSLATION SERVICES IN SPAIN

<http://www.dualia.es/?atala=1>

Dualia is a company based in the Basque Countries that launched in 2009 offering 'tele-translation' or real time interpreting services via the telephone. Tele-translation is available in 51 languages.

<sup>32</sup> This is made possible by a 3-year agreement made with the French mobile operator SFR.



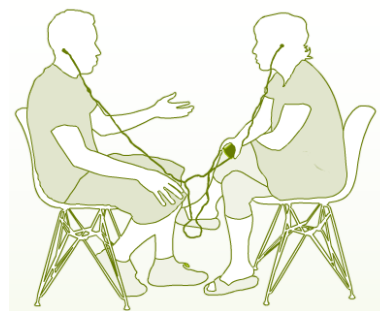
Dualia offers three services. First, a direct or “face-to-face” translation, enabled by using a dual handsfree device which is connected to a mobile telephone. This device makes it possible for two speakers of different languages to hold a conversation through an interpreter who is at the other end of a telephone line. Most of the interpreters are located around Spain, and some are beyond Spain.

To make use of the service the interested organisation needs to acquire a Dualia Pack, consisting of a mobile telephone with calls restricted to the Dualia Call Centre and a dual handsfree device.<sup>33</sup> By placing a call to the Call Centre the system connects the two parties to an interpreter of the chosen language. Second, it is possible to access the service by connecting the handsfree device directly to a company landline or mobile telephone. When the two parties are not face-to-face, a 3-way conference call translation can be done, subject to a previous registration with Dualia.

Finally, Dualia also offers a video conferencing service when the two parties are not face-to-face and communicate in sign language. This service is PC and multi-platform based. The configuration of the system allows it to be used by multiple users and multiple translation centres. The communications are totally secure, as they are done via private virtual networks.

Dualia’s translation services are available without any previous booking and their immediacy and accessibility are among the most valued features by the customers. The service have been promoted primarily towards organisations working with immigrants which need to overcome language barriers. Most of Dualia’s customers are public organisations from different Spanish regions in charge of health, emergency, integration and social (women-oriented) services. In March 2012 there were more than 2000 customer organisations covering the majority of regions in Spain. The economic crisis has led to serious public budget cuts, but most of Dualia’s customers have continued using the service (albeit less intensively) given its cost savings benefits compared to other translation solutions.

Once the dual earphones are connected, speaking is done via the handsfree device.



#### DIGITAL UNDOC – SUPPORTING YOUNG UNDOCUMENTED IMMIGRANTS WITH DIGITAL SOLUTIONS, U.K.

<http://digitalundoc.com/>



Digital Undoc is a project commissioned by the Paul Hamlyn Foundation<sup>34</sup> and Unbound Philanthropy,<sup>35</sup> delivered by On Road Media<sup>36</sup> in the U.K.. It is part of the Supported Options Initiative, a two year initiative launched in 2012 that aims to improve the lives of young undocumented people. Digital Undoc aims to increase understanding of the potential of social media, mobile phones and digital technology in general to help meet the advice and support needs of children and young people who do not have regular immigration status in the UK. Rather than promoting a formal research study, it was decided to use action learning to improve skills and understanding of technology and its potential uses within the immigrant and advice sectors.

<sup>33</sup> The dual earphones were developed and patented by Dualia and they are registered with the Spanish Office of Patents and Brands.

<sup>34</sup> <http://www.phf.org.uk/>

<sup>35</sup> <http://www.unboundphilanthropy.org/>

<sup>36</sup> <http://www.onroadmedia.org.uk/>

An ‘innovation camp’<sup>37</sup> was thus organised to come up with practical ideas to improve support for young people by using digital technologies in different ways. The Undoc Camp was held on July 13-14, 2012 in London, attended by over 100 young people, Paul Hamlyn Foundation grantees, immigrant and advice organisations, designers, developers and innovators. Six challenges had been identified by the initiative grantees and a handful of other experts two months earlier: 1) Arrival; 2) Legal advice and support; 3) Self-help and well-being; 4) Awareness; 5) Trust; 6) Returns.<sup>38</sup>

The Camp’s attendants divided into groups with mixed expertise (eventually 8 were formed) had to come up with project ideas tackling these challenges. The winner and two runner up projects won respectively £ 5,000 and £ 2,500 prize each, to move onto the prototype design and testing of their ideas.

The three winning project ideas are briefly illustrated below.<sup>39</sup>

Exceptional Funding Project (winner): an accessible online referral system for undocumented migrant children and families to get assistance with applying for exceptional funding from the Legal Aid Agency. This is crucial since in light of the changes made to Legal Aid on 1 April 2013 (under the Legal Aid, Sentencing and Punishment of Offenders Act 2012), immigration advice on the human right to a private and family life has been removed in the U.K.. Besides referral functions, the system will also be used to identify cases worth selecting in order to challenge the related decisions by bringing them to higher levels of judgment; and to monitor the situation created by the funding cuts across the country.

First Start (runner up 1): is a website and text messaging service to help young people without regular immigration status and people new to the U.K., to find support services via text message, website and video (for illiterate people), in various languages. The service, when launched, will help young people to locate migrant support organisations, services such as the local post office and recreational areas as well as other orientation services.

Second Friend (runner up 2): is an open source platform designed to establish a fast, easy, secure and confidential (anonymous on the sender’s side) communication channel between vulnerable people, undocumented young people and a trained counsellor from a trusted third party. The service can function on several platforms: website, text message, mobile app, mobile phone and back office system for counsellors to access and answer incoming requests. See also <http://2ndfriend.io/>

An important result of the Undoc project has been to see advice organisations work with technology developers and designers for the first time, with much learning and progress for both parties. This is very important, because the project’s promoters had found that organisations working with immigrants are not exploiting new media to get their messages across in the languages of the young people they are trying to help, nor are they thinking about digital components to their projects in a significant way. This is mainly due to a lack of expertise, fears, both real and perceived, and an absence of exposure to digital expertise. A broader description of the Undoc project with lessons learnt and recommendations is provided by McDermott (2013).

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<sup>37</sup> An innovation camp also known as Barcamp is a new process that brings together professionals on the ground, people who have first-hand experience of the issues, technical experts and innovators to devise solutions to a problem, using the web and digital technology, in a short space of time.

<sup>38</sup> More details can be found at <http://digitalundoc.com/6-questions/>

<sup>39</sup> Information about the other project ideas can be found at <http://digitalundoc.com/2012/07/18/all-the-pitches-from-undoc-camp/>



*The next three cases promote and support the use of mobile phones and social media to increase immigrants' opportunities for expression and to have their "voice" heard in the public sphere. These initiatives result from collective efforts which both rely upon and also reinforce social participation.*

### **VOZMOB - MOBILE VOICES OF L.A. IMMIGRANTS, USA**

<http://vozmob.net/>



Mobile Voices (VozMob) is a platform for immigrant and/or low-wage workers in Los Angeles to create stories about their lives and communities directly from mobile phones.

VozMob promotes the appropriation of technology to create power in local communities and achieve greater participation in the digital public sphere.

Mobile Voices initially began out of collaboration between the Annenberg School for Communication & Journalism at the University of Southern California ([ASC&J](#)) and the Institute of Popular Education of Southern California ([IDEPSCA](#)).

From 2008 to 2010 Drupal developers, IDEPSCA's Popular Communication team (a team of Day Laborers and Household workers), IDEPSCA staff, University of Southern California researchers, media activists, and volunteers worked together to design the system, analyze stories, develop shared knowledge, and create training materials.

The Popular Communication Team has been volunteering for IDEPSCA for many years and takes their role of writing their own history very seriously, thus they continue to meet with IDEPSCA staff and other volunteers to strengthen the project and are active popular communicators. Currently VozMob has a structure governed by Affiliates that consist of community based organizations and groups who are active in sharing their stories through this platform and receive training for this when required.

VozMob's vision is to create a network of organizations that work with low-wage immigrant and non-immigrant workers who have been excluded from traditional media and from the digital public sphere, and who actively share their stories with the world and strengthen the voice of struggle and success of these communities. As written on VozMob's website "*We want to create a space where communities connect with their stories not only online but take the time to hear and see each other offline to create a world where their voices are no longer silenced.*" Given this perspective, VozMob is not for individuals or groups who would like just a mobile blog, nor for non-profit organizations that are primarily service oriented, or do not engage in community organizing, or primarily work with communities who are well-represented in mass media and online spaces. These people and organizations are rather encouraged to re-use VozMob's code which is available for free, since the content management system is a customized version of Drupal, the popular free and open source software.

### **MEGAFONE.NET - A COMMUNAL WEBCASTING DEVICE&COLLECTIVE PROCESS<sup>40</sup>**

<http://www.megafone.net/INFO/>



Since 2003, megafone.net (formerly known as zexe.net) has been inviting groups of people on the fringe of society to express their experiences and opinions through face-to-face editorial meetings and mobile phones. Mobile phones, are used by participants to create audio recordings and images that are

<sup>40</sup> megafone.net is directed by Antoni Abad and programmed by Eugenio Tisselli. Since 2008, Lluís Gómez from Hangar Barcelona has joined the team as a programmer of the mobile phone software.

immediately published to the Web. These act as digital megaphones, amplifying the voices of individuals and groups who are often overlooked or misrepresented in mainstream media.

megafone.net has developed eleven projects with different communities: taxi drivers from Mexico City (2004), young gypsies in Lleida and León (Spain 2005), prostitutes in Madrid (2005), Nicaraguan immigrants in Costa Rica (2006), motorcycle messengers (motoboy) in Sao Paulo (2007), displaced and demobilized people in Colombia and young Sahrawi refugees in the Algerian Sahara (2009).

Two projects were developed with people with limited mobility in Barcelona (2006) and Geneva (2008), and another one in Barcelona (2010) with blind and visually impaired participants. For these projects, participants used GPS-enabled mobile phones to photograph obstacles and architectural barriers they found in the streets and to create a real-time, web-based accessibility map of their cities.

At the heart of this project is the concept of a “communal mobile phone”, a portable GPS-enabled camera phone equipped with the recording and transmission facilities of the megaphone software and designed to be used and shared by multiple participants. This ‘megaphone’ changes hands every week. During weekly editorial meetings, participants discuss the content of the webcasts, and allow each other to publish news and information. One communal mobile phone is designed for use by a group of up to four participants.

Megafone.net is a platform which can be useful as an alternative medium of communication for groups, collectives and associations who wish to organize themselves in order to project their own views and opinions, and counterbalance the negative stereotypes that the mass media disseminate when referring to them. Among its features, one finds geo-localization, which allows the carrying out of digital public cartography projects.

#### DIGITAL ACTIVISM COURSES AT MRCF IN LONDON, U.K.<sup>41</sup>

<http://migrantforum.org.uk/portfolio/digital-activism/>



The Migrant and Refugee Communities Forum (MRCF) was established in 1993 in response to the needs of immigrant and refugee communities in northwest London.

In the true spirit of partnership and self-help, diverse communities overcame their differences and joined forces in order to empower themselves. MRCF has a membership structure with 40 organisations currently enrolled. Of these 30 are groups, which primarily service particular ethnic groups, such as Somalis, Bosnians, Ukrainians, Chinese, Ethiopians, Moroccans, Vietnamese, Sudanese and Eritreans. Today, the Forum defines itself as “a cross between a grass-roots community self-help organisation and a hub that provides support and services to numerous individuals and groups”.

A few years ago, the Forum acknowledged two facts. First, that the high risks of digital and related social exclusion among its members (statistics showed that in the U.K. 4 million of the 8.4 million adults who have never been online are also socially and economically excluded). Secondly, this was compounded by the fact that community leaders were using the Internet and mobile phones in their efforts to advance democracy in their home countries, but in Britain they fell silent. An investigation of these issues among the members revealed that many found equipment and Internet connections expensive and struggled to find good quality training. In relation to speaking out, they all felt silenced by the deafening negative discourse on migration all around them and by fears that drawing attention to them might increase racist attacks.

<sup>41</sup> This case draws from (MRCF, 2012) and (ENAR, 2011).

Having decided that the new digital age was an opportunity that should not be missed, MRCF developed a 7-week course on Digital Inclusion and Activism Training. Funding for a trainer was provided from the Equalities and Human Rights Commission and from 2010 training has been delivered for more than 80 community workers on a range of topics, from how to find your MP and use Hansard online to posting messages on Facebook, from creating a blog to providing feedback to the NHS online.<sup>42</sup>

Some results from this effort have been: the creation of 74 new blogs; the increase of time spent online per day by trainees by at least one hour; the increase of skills and confidence from 78% to 87% (for computer skills) and from 45% to 91% for Internet skills like using a social network. Before the courses the biggest barriers were fear of not knowing how to do something and concerns with privacy, while after the course, trainees declared the biggest barrier to be that they didn't have enough time.

*The next two projects concern the use of mobile phones, but are not aimed at third country nationals arriving or living in Europe. NewExpat addresses the 21 million European expatriates who live in Europe, but the problems it tackles and the solutions it envisages are in many cases comparable to those that will be faced in MASELTOV. Life 2.0 aims to support elderly people by using location based services and social networking applications in ways which are similar to those envisaged in MASELTOV.*

#### **NEWEXPAT, FRANCE**

<http://www.pop-development.fr/>; <http://www.marcopolis.fr/index.php?>

NewExpat is a mobile application targeting European expatriates who have moved to live in other countries in Europe. Its development is supported by the ProximaMobile initiative of the French government (<http://www.proximamobile.fr/>) and was due to start in mid-2012, building upon an existing application developed by Marcopolis for the about 800,000 people who move to another region every year inside France (<http://www.changerdeville.fr/>).

NexExpat's objective is to help future European expatriates in the choice of their host country and to ensure a smooth transition in their new city of residence. In terms of content, the primary focus will be on job opportunities and housing issues. The application will use public and private data drawn from various open data sources for country and city level information: the OECD; Wikipedia; national data sources such as data.gov.uk for Great-Britain, datos.gob.es for Spain, data.gouv.fr for France; public data provided by European cities such as opendata.paris.fr, data.london.gov.uk and others (see <http://data.opencities.net/>). While such sources are proliferating, the lack of common approaches and standards makes their exploitation at the moment quite difficult.

The application will also provide users with a "barometer" of the most suitable countries within the European Union based on their criteria and with a "to do list" (customized thanks to a number of personal filtering criteria) when they arrive in their destination country – registering children for school, registering for social security, subscribing to repatriation insurance. The application will also include a social network which will allow expatriates who

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<sup>42</sup> The Digital Activism Course offers modules about interacting online, creating a blog, influencing national and local policy, sending HTML newsletters, and engaging with the media. Participants must already be confident using a computer and email. A second option also for already experienced ICT users, is the Crash Course in Social Media, which aims to give attendees the knowledge to create and make page updates, empower their organization through the web and social media. A third offer are the drop-in sessions run on Wednesday afternoons for any immigrant or refugee seeking help with computers. These provide assistance to set up an email account, learn new things on Microsoft Word, Excel, or Powerpoint, update anti-virus software, and so on.

have recently moved to the same city to share about their experiences, get tips and feedback. NewExpat will be available in English and French on iPhone and Android.

#### **LIFE 2.0 – GEO-LOCATION SERVICES FOR INDEPENDENT LIVING AND SOCIAL INTERACTION OF ELDERLY PEOPLE**

<http://www.life2project.eu/>



Life 2.0 is a European funded project (CIP ICT-PSP program) that started in 2010 and ran until end of 2012. Life 2.0 aimed at supporting elderly people's independent life through a platform of geographical positioning and social networking services. These were tested in 4 pilot locations in Denmark, Italy, Spain and Finland, where over 100 elderly people got involved through training centers, community centers and local libraries.

Three main usage scenarios were developed. First, mutual help, using Life 2.0 to support elderly citizen's mutual cooperation. Second, organising events, using Life 2.0 as a meeting space to organise new activities or participating to new events. Third, service marketplace, using the Life 2.0 platform to create links between elderly people and service providers available in their area or even to support new services offered by elderly people. By connecting to the Life 2.0 platform from home or from a mobile device (smartphones and tablets), the elderly user could see who is around, what services are offered in the neighbourhood, who among his/her friends can help with simple tasks, what are the main events in the area and who is participating and could also organise a new event (e.g. finding company to go to the cinema, or for a bush walk).

While Life 2.0 was primarily a platform for social communication between senior people, it was also developed and promoted as an opportunity for local small business and institutions and for regional and national service providers to be more visible to seniors living in the given local area and to offer them their services.

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#### 4. LESSONS LEARNT FROM ICT-MOBILE BASED INITIATIVES

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Documentation assessing the experiences presented in Chapter 3 is overall limited, especially about the lessons that can be learnt from their development and their impact. This is a problem repeatedly observed by researchers of eInclusion initiatives<sup>43</sup> which was confirmed also by our survey.

In this chapter we summarize therefore the lessons learnt and recommendations that emerge from: the information gathered directly about the projects presented in Chapter 3; the reflections about some of these experiences developed by the authors of the contributions in Appendix 1 and another publication about the m-learning project (2001-2004) in the U.K. (in particular Attewell, 2005); a study which has assessed a range of experiences in ICT use for L2 learning by adult immigrants, including some of those listed in Chapter 3. (Kluzer et al., 2011)

Given the sources available, most of the findings and considerations refer the domain of mobile learning and specifically of L2 learning. This also reflects that in this area there are many more experiences compared to other application domains; some of them have a relatively long history; and thanks in particular to the m-learning project and to the MoLeNET programme that followed it, a significant set of evaluation results is available.

We believe however that many of the findings and suggestions presented in this chapter, except for a few specific ones, can be useful also for initiatives undertaken in other domains.

##### 4.1 BENEFITS FROM MOBILE ICT USE FOR SECOND LANGUAGE LEARNERS

Unlike other groups of learners, adult immigrant learners are often very diverse which brings challenges to offering appropriate learning provision. They can be immigrant workers, from difficult-to-reach groups, refugees, or partners of students who are settled for a number of years. They may have families and/or work. They may also have different levels of ability/competence in their first language, quite apart from their ability/competence in the second language. So L2 learners in any classroom setting, but also in general, will vary considerably depending on their age, aspirations, educational background, language background and aptitude for learning languages.

An effective L2 educational approach for this target group should therefore comprise features such as: addressing the actual needs of learners; linking L2 training material and courses with personal trajectories and job orientation; offering continuous feedback to learners; making L2 learning opportunities available in a flexible way, at the workplace, on the move, at different times of day; offering support through mentoring and buddy schemes; providing portable language credentials; and others. ICT can play a useful role in achieving these aims.

Summarising the findings about the benefits from the use of mobile technologies by L2 learners in the MoleNet project (both young and adults) and in other experiences, we can list the following:

- recording learners speaking and enabling access to online audio/video recordings and podcasts help learners to develop their speaking and listening skills;

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<sup>43</sup> Codagnone (2009) analysed over 1000 cases of eInclusion support initiatives and found that only a few reported any information about their tangible (economic) and other benefits.



- the use of blogs and social networking encourages language development and vocabulary acquisition, and material can then be reinforced in group and class discussions which encourages collaborative learning;
- engaging learners in interactive activities can also support the development of literacy and writing skills and enhance other skills such as numeracy and the ability to use technology;
- more interactive, game-like exercises and applications, especially when they stimulate and support peer and group interaction and learning, are very popular among learners and endorsed by teachers;
- applications can be used to document and make visible learning progress (language portfolios), paving the way to the provision of portable language credentials and the certification of informal learning results;<sup>44</sup>
- mobile technologies afford improved communication, both peer-to-peer and with tutors;
- accessing the Internet outside the classroom proves valuable to gain access to language learning resources, which can be downloaded to support independent learning, and other services used such as translation from the first language and use of email;
- handheld technologies enable flexibility that allows mature learners to learn at times and in places that are convenient for them. They also encourage and facilitate inter-generational learning and community cohesion;
- overall, in MoLeNet program, learners' perceptions of learning changed over the course of the project, from something that happens in the classroom to something that can take place anytime, anywhere: "... *They also mentioned they had used it at home, college, on the bus, everywhere, even in the bath!*".

Given their reported relevance in many experiences, we elaborate now further on two of the above findings: the benefits of ubiquitous learning and the importance of active user involvement, i.e. constructive learning.

#### **FLEXIBLE DISTANCE LEARNING IN MOBILITY, AT HOME AND IN THE WORKPLACE**

Handheld technologies give users a great deal of flexibility in terms of the time and locations where learning can occur. This aspect has been found very important for adult immigrant learners (and adult learners in general) who as mature students may have family or work responsibilities to manage alongside the courses that they may be attending.

The availability of learning units of short duration (10-15 minutes) increases the chances of 'bite size' learning (as defined in the Anspear experience<sup>45</sup>) which can be easily slotted in around other activities, including in mobility on public transport. In this way, significant additional learning can be achieved in between classes for those attending also class-based courses.

Mobile devices can be used also at home with other family members. This has been found to encourage and facilitate inter-generational learning which has many benefits especially for immigrant mothers. Mothers have used the device also to teach their young children basic second language (or be helped by them if they are quicker at learning it at school) and can be helped by the children to use the phone and understand its features. Mobile phones, like other digital tools, are more easily appropriated by children and young people who can lower fears and other usage barriers experienced by their parents. To actively encourage such family

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<sup>44</sup> This is a very important opportunity for immigrants, but it also requires additional steps beyond technology. The Recruitment program in the Municipality of Stockholm could provide a certification of informal language acquisition through the MyVocab application thanks to an agreement with the Open College Network.

<sup>45</sup> This is the average duration of daily use at home of the Anspear mobile application in London and also of the 365 "nano" lessons designed by the Lango project.



learning, as we have seen in the Anspear project, the ability of the phone to support multiple users was added.

The use of mobile phones and other mobile devices for L2 learning and assistance in real time, real life conditions (starting from the workplace) is an emerging, promising area for the end users (as they can meet an immediate need) and also for pedagogical considerations, because connections can be created or mediated between formal and informal learning situations.<sup>46</sup>

#### **INVOLVING USERS IN CONTENT PRODUCTION FOR AUTHENTIC LEARNING AND RESULTS**

ICT use can support the personalisation of L2 tuition and the integration of specific, authentic, location-based content and material. This is very important to better link L2 learning more closely with learners' actual needs and personal trajectories, including job-related aspects (professional vocabulary and expressions, job search and interviews, etc.).

Learning content can be produced by teachers, but when mediated by new media devices and smartphones in particular, user-learners can play an active role in its creation. For instance, they can take photos, videos, undertake research, download music, translate words automatically and, of course, communicate with others. This is a strong motivational factor which is crucial for learning engagement and achievement. It is important also for practical reasons particularly for L2 learners. As mentioned before, recording each other speaking can help working on pronunciation. Video recording workplace processes can be used for studying them later. L2 learners often understand their peers' problems better than their teachers and can develop better resources, e.g. additional visual cues for the understanding of words.

A specific application of these concepts is found in some employability support experiences which envisaged the production typically of multimedia CV or personal presentations by the immigrant learner-customer. In the Skåne project ("ePortfolio Skåne for Competence Validation", Section 3.3), this activity was both: strongly motivating for the learner, because it led to a concrete, immediate outcome, which was in fact also very much appreciated by job services and potential employers; and an opportunity for learning vocabulary and expressions about one's competences, work experiences and aspirations, which are relevant for employment e.g. a job interview and also increase the individual's insight and self confidence.

In view of the promotion of the active engagement of learners in the production of audio/visual material and other content for learning, a related consideration concerns the lending of mobile devices to users. The MoleNet programme found that as too much control of the devices, and their use by teachers and service providers, would detract from mobility and restrict use by the learners, a balanced approach should be adopted which entails: a) explaining carefully to the learners their responsibilities regarding the devices and their use; b) asking them to sign a statement that they understand this; c) trusting them to behave well but monitoring their use and setting maximum limits for calls etc. beyond which phones would be blocked and could only be unblocked via the project's helpdesk.

If due attention is paid when introducing mobile devices, concerns about loss, damage etc. are usually overstated.<sup>47</sup>

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<sup>46</sup> Mobile media can be used in innovative ways to create or mediate connections between the formal classroom setting and more informal learning situations. This is important because the communicative appropriation of language draws on the authentic and experiential input from the real life of the learners and mobile learning can involve learners in authentic productive activities (Gjedde & Bo-Kristensen, 2010).

<sup>47</sup> Based on MoLeNET's experience (see <http://www.molenet.org.uk/mobilelearnprac/myths/>): 8 of the 32 MoLeNET phase one projects did not experience any damage, loss or theft; in total less than 2% of

#### 4.2 LIMITATIONS AND BARRIERS TO EXPLOITING MOBILE OPPORTUNITIES, AND COUNTERMEASURES

The exploitation of mobile technologies for L2 learning faces predictably also some important limitations and barriers.

We mention here those which impact the institutional and organisational context of both formal and informal L2 education: lack of awareness and knowledge about ICT-related opportunities by decision makers who must invest in their use; lack of awareness, but also of adequate technical and pedagogical competences by the teachers, tutors and mentors who should adopt these tools in their activities and support the end-users; the problem of searching and choosing the appropriate ICT-based resources and others. (Kluzer et al., 2011) Depending on the exploitation strategy that will be envisaged for the future MASELTOV solution, in particular concerning the involvement and role of adult education services providers, these challenges might indeed become important.

At the moment however, we focus on two aspects which have to do with technical shortcomings of ICT application in L2 learning and with the diversity of users especially with respect to their digital competences. Besides illustrating the problems, we also provide information about actions which have been found helpful to address or compensate for these problems.

##### ICT LIMITATIONS FOR L2 LEARNING

Two types of ‘functional’ shortcomings specific of ICT-based L2 learning have been identified by researchers and practitioners.

First, the vast majority of current ICT-based individual learning tools provide limited support to speaking skills. Opportunities to practice talking/speaking with ICT are mostly limited to pronunciation drills, which emphasise phonemes in relation to the letters of the alphabet or individual words. Intonation and stress patterns however are poorly addressed if at all. As mentioned above, making available audio/video recordings and podcasts have been found useful also to enhance speaking skills, but this limitation has not been overcome. Speaking skills should thus be also practiced and learned in the classroom and supported in everyday interactions.

The second widespread complaint reported by users and teachers concerns the feedback on mistakes provided by ICT-based systems to the learner, which is often deemed to be too poor, especially by the less educated and autonomous learners.<sup>48</sup> Enriching the amount of explanation and contextualization of automatic feedback can reduce this problem, but there is inevitably a limit to this. Again, direct learner-teacher and learner-learner exchanges can compensate for this shortcoming and help especially weaker learners develop the skills needed to better cope with them.

##### THE IMPORTANCE OF A BLENDED AND STRUCTURED LEARNING APPROACH

As we mentioned before, ICT-based L2 tools and resources offer many opportunities for personalised and individual study outside organised classes, which are in principle important given immigrants' diversity and course attendance constraints. However, a blended approach combining classroom teaching and distance learning and a balance between individual and group learning is recommended. Face-to-face group learning is important (especially for the

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approximately 10,000 handheld devices purchased were damaged, lost or stolen; in phase two, less than 1% of all devices purchased were damaged, lost or stolen.

<sup>48</sup> An illustrative comment from interviewed learners says: “I get the ‘wrong answer’ message, but I don’t understand why. Or the explanation given for it is not clear”. (Driessen et al., 2011)

less educated and autonomous learners) in order to overcome the above technical limitations in supporting speaking skills and giving feedback, and also to preserve the role of ‘classroom talk’.<sup>49</sup> Conversation and speaking practice is a vital component of classroom activities in blended learning approaches. Also, face-to-face contact with teachers and peers is highly beneficial for immigrants’ social inclusion, especially for newcomers, as language classes are an important source of new friendships.

From a slightly different perspective, although the pros and cons of ICT-based informal L2 learning opportunities are still being explored and understood, current evidence suggests that these opportunities should be integrated as useful resources within a structured L2 learning approach, as this seems to be appreciated by learners and more effective.<sup>50</sup> The combination of formal tuition, examination incentives and encouragement from teachers and peers creates a favourable context that, for instance, has been found to stimulate a more intense and varied use of learning resources, compared to fully independent learning. Besides, autonomy development in the new online and mobile learning environments needs guidance and support from trained advisors (Bailly, 2010).

#### **FEARS, SKILLS AND COMPETENCE BARRIERS AND RELATED COUNTERMEASURES**

As we have seen in Chapter 2 with respect to the uneven diffusion of Internet access and as discussed in the introduction of Chapter 3 about basic skills and digital competence gaps, digital access and usage capacity limitations affect significant numbers of the immigrant (and the whole) population in all European countries. The price of ICT devices, especially of the latest smartphones, and that of high-speed mobile services (including their availability in more peripheral geographic areas) are of course an important concern in this respect. This will be assessed in MASELTOV through a specific ‘affordability study’ and the exploitation plan.

Fear of technology and a low level or lack of digital literacy clearly represent barriers to effective ICT use for L2 learning especially among the more vulnerable members of the immigrant population, the lower educated and skilled. While this is indeed a risk, it is not an inevitable outcome. Various countermeasures can be adopted:

- ICT applications should be kept as simple as possible;<sup>51</sup>
- tools already known/trusted by the users should be selected; mobile phones have a plus in this respect compared to computers;
- listening to recordings of conversations, role-plays or songs in the L2 provide benefits for the lower educated (no literacy competence is required), and they can be replayed as many times as wanted and needed, in any location and at any time.

The experiences of several MoLeNET projects and those described by Maria Ranieri in Appendix 1 suggest that, although mobile phones are in general easier to use than computers, smartphones can require specific competence if their full functionality is to be exploited and complex aims are to be attained. This is a serious issue for digitally illiterate adults (see

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<sup>49</sup> “Talk is work in the ESOL classroom and these classes are largely made up of talk... ‘Speaking English’ is the goal, but the adults in the classroom are also social actors struggling to get things done and move on in terms of their social world and work opportunities. So, classroom talk is not only about fluent and accurate linguistic form (second language acquisition, SLA) but second language socialisation (SLS): the social and pragmatic knowledge to use language in real communication and the process of socialisation through language” (Baynham et al., 2007, p. 56).

<sup>50</sup> As an example, the value of combining elements of structured learning in the Busuu platform with user-generated content from the Lingobee application was raised after the Barcelona workshop (see page 39).

<sup>51</sup> The example from the Alpha-Beta project which aimed to help illiterate immigrant women shows that the request of pressing a specific sequence of buttons turned out to be too complicated for this target group.

below), but also for youngsters. Not all young people are “digital natives”, nor does this “native” status mean that young people will need little or no support when using mobile technologies for learning. While young learners can use them well on a superficial level, more demanding tasks stretched their knowledge of the technology. Therefore, the time and cost required to train the students on how to use the devices is often an unforeseen issue.

Immigrant women, especially low educated ones are sometimes also digitally illiterate and are more often reluctant to adopt digital tools. Effective measures to address this group are:

- embedding ad hoc introductory digital literacy actions in the first steps of L2 tuition in order to familiarize them with the new tools and to provide them with basic digital skills, along with basic reading and writing capabilities, if needed
- developing basic L2 skills for understanding feedback from teachers/tutors, as this is a crucial factor, if not an outright prerequisite for effective ICT use in further L2 acquisition;
- providing bilingual tutors in the early stages of ICT-based learning and/or bilingual manuals and other course materials;
- including exercises with written and narrated instructions (in L2 or in both languages), thus allowing learners to overcome the literacy barrier (if present) and contributing to their L2 acquisition.

Many experiences show that when these problems are successfully tackled, besides enhancing learning results, very strong empowerment and emancipation usually occur among the learners.

After initial practice with ICT, the ability to use learning applications and to select from new digital resources should also be considered and developed for both new and more experienced users (Bailly, 2010). This is particularly important in view of the increasing number of opportunities available online, often for free, supporting independent learning.

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## 5. CONCLUSIONS

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This report has attempted to provide in the first place a short overview of the European policy context, specifically on integration and digital inclusion matters, from which many of the projects and initiatives discussed later have been supported. There is not, in fact, anything like an across-the-board “digital integration policy” at European, nor at Member States level. There are also no explicit and clearly designed digital interventions in specific areas, such as second language (L2) education, which have witnessed significant public spending in recent years. Nevertheless, as ICT have become pervasive in so many domains, a growing number of projects related to immigrants’ integration and especially education, have started including an ICT investment component. At the same time, based on the notion that the immigrant population might at least partly suffer from digital (access and skills) exclusion and receive limited benefits from the ever growing range of public and private digital services, European e-Inclusion policies have started paying attention to these issues. They have funded studies and promoted greater awareness among policy makers and eventually funded an ICT research project (MASELTOV) specifically targeted to exploit mobile solutions to support the integration needs of weak segments of the immigrant population.

Many priorities set by European integration policies –from developing the L2 proficiency of immigrants, to supporting their labour market integration and others- can be related to a wide range of specific ICT applications that could be exploited to support them. However, it is important to always keep in mind that the reasons that stand behind the integration difficulties and failures faced by many immigrant people in Europe do not stem from and cannot be overcome simply by promoting a wider use of ICT in general and mobile phones in particular. Their roots are always in deeper socio-economic inequalities, cultural dynamics and other factors which –unfortunately- cannot be removed by technological solutions as such.

In Chapter 2, we have put together the existing quantitative evidence about the diffusion of ICT among immigrants in Europe. What does it tell us about the above assumptions on immigrants’ digital exclusion? Evidence from past studies in a few EU countries on specific segments of the immigrant population (and the Black and Minority Ethnic groups in the U.K.) showed that a few years ago immigrants were at the same, or above, the adoption level of computers and Internet as the whole population. Figures on mobile phones take up by immigrants were even higher. From 2010, Eurostat has introduced questions about nationality and country of birth to the respondents of the European survey which measures ICT adoption and use in households and by individuals. Thanks to this survey we now have a more accurate picture, albeit one still incomplete in terms of country coverage, and limited as for the aspects for which valid results are available.

The new picture confirms at aggregate EU level and for many countries the previous common finding that Internet use among non-EU nationals (70% in 2012) is close to the level of the whole population (74%) and has been converging fast towards it. Non-EU born people are even above (76%) of the whole population’s average. However, the share of connected people (those who used the Internet in the last three months) in the whole population still differs significantly across EU countries and the same applies to the non-EU born/nationals component. In the case of mobile phones, the position of the categories is even stronger. At European level, those who used a mobile phone or smartphone to access the Internet in 2012 were on average 27% of all individuals, but a higher share (30%) of non-EU nationals and even higher of non-EU born people (34%). Again, however, significant variations show up looking at country-level data.



Besides such cross-country differences, in fact underlying them, recent preliminary results from the ICTEGRA study show for three countries the existence of significant digital divides within the immigrant population depending especially on age, employment status and education background. These are well-known factors behind digital exclusion which affect also the whole population.

Summing up these findings, most likely the vast majority of immigrants in ever more EU countries use new digital technologies, including smartphones whose market is predicted to grow significantly in the next few years. To a lesser, unknown degree (available data does not provide such details), many people do so also among the more disadvantaged groups, including newly arrived immigrants. Yet, everywhere there are also immigrant individuals and groups whose members' combined characteristics in terms of age, education, employment etc. lead to various degrees, even high ones of digital exclusion. These people lack access and basic skills to use digital devices and the Internet.

The promoters of ICT initiatives addressing disadvantaged immigrants and their integration needs – including MASELTOV partners- should be aware of the above situation. There are indeed opportunities to be exploited with the many already highly connected immigrants; but several obstacles will have to be tackled with those with access and skills problems.

In Chapter 3 we presented an interesting range of experiences with mostly mobile applications which address immigrants (mostly adults) with different levels of digital access and skills and different types of integration-related needs.

Overall we actually found a small number of such experiences.<sup>52</sup> Although we could not perform an exhaustive search of projects and services in all EU countries, the information sources that we used should have guaranteed a good coverage of existing initiatives, except for the very small-scale and short-term ones. So, the number of initiatives around seems indeed small. The economic crisis which has hit hard many countries and slowed down immigration flows from outside the EU to Southern Europe, along with more restrictive entry policies in many Central and Northern European countries, may have reduced both the availability of public funding and the motivation to spend it in this area. On the other hand, it is possible that we may have overlooked very recent initiatives which one would expect to be driven by the current high growth rate of the mobile phone and services markets. For instance, in Barcelona we heard about a growing interest by local administrations to explore the opportunities of using mobile phones to reach immigrant customers with the large amount of information (about their rights and duties, local services, language courses and other topics) produced for welcoming policies –often also for a legal obligation. This information is currently delivered mostly through traditional means (posters, leaflets and so on).<sup>53</sup>

Looking at the results of our search, the domain of mobile learning seems to host most initiatives. This is thanks to the large-scale MoLeNET programme in the U.K. (albeit not targeting immigrant users as such) and to the funding available under the EU Lifelong Learning programme, which has supported for a long time the development of digital competences and the exploration of ICT's potential in formal and informal education. The multiplication of language policies at Member States level requesting immigrants to take courses and pass tests on the host country language have also stimulated new investment in

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<sup>52</sup> A quick check of sources at a wider international level did not produce many more results. A few countries of origin of large immigrant population groups –in particular, the Philippines- have been running interesting initiatives for some time to support their immigrant workers abroad with mobile-based services. We have not investigated these experiences, but for the moment they seem to be exceptional cases.

<sup>53</sup> This was stated by Ramon Sanahuja, chair of EURO CITIES' working group on migration & integration at the MASELTOV Barcelona workshop. Founded in 1986 by the mayors of six large cities (Barcelona, Birmingham, Frankfurt, Lyon, Milan and Rotterdam), EURO CITIES is the network of major European cities which currently brings together the local governments of more than 140 large cities in over 30 European countries.



ICT-enhanced initiatives. The use of mobile phones to support learning processes and digital content creation (e.g. multimedia CV and digital storytelling) also occurs in several projects whose main goals are actually to promote greater labour market integration and socio-economic participation of disadvantaged immigrant groups (e.g. projects addressing first and second generation young immigrants).

Other interesting usages of mobile phones have been found beyond learning support initiatives. These projects explore the use of mobile phones to give “voice” to destitute immigrants, to sustain community building processes and to make everyday life easier for those involved. These projects usually also include some digital literacy efforts, in order to enable the active role and participation of end users.

The findings reported in Chapter 4 reflect very much the bias towards learning applications of the surveyed initiatives. This chapter aimed to put together some of the lessons learnt from the experiences with mobile phones and immigrants. Unfortunately, for those outside of the learning domain we could not find much in terms of readymade analyses and evaluations of barriers, drivers, effective solutions, impact and so on, across multiple projects. This might be due to the overall lack of tradition (and methodological difficulties) in performing these activities in the eInclusion domain (see footnote 43), but also to the limited number and recent start of mobile-based experiences in other application domains.

In the learning domain –we looked in particular at second language learning- there is today a better understanding of the potential benefits (and barriers) of using mobile phones/devices and crucially of the pedagogical innovation (when used in formal education context) and other requirements to obtain those benefits. We highlighted in particular the new opportunities afforded by mobile devices to provide flexible, ubiquitous and ‘when needed’ learning occasions (which are to engage learners in constructive and more effective learning processes). But we also reported some ICT limitations for L2 learning found by practitioners and researchers. These lead to recommend the adoption of a blended and structured learning approach even with applications which support informal, independent learning, such as the one being developed in MASELTOV.

Besides technical limitations which are specific to L2 learning, a range of fears, skills and competence barriers to ICT use are also mentioned as important factors by initiatives in the mobile learning and other domains, especially when working with low educated and digitally illiterate people. Luckily, a number of suggestions drawn from those experienced in how to tackle these barriers are also available. In most cases they call into play the role and support that can be given to the weakest users by those who are known in the eInclusion discourse as “intermediaries”, e.g. youth and social workers, job facilitators, trainers, mentors etc. and the organisations they work for including charities and advice organisations working with immigrant customers. Immigrants associations can also play an important role bridging digital and social inclusion activities. How ICT in general and mobile applications can help these intermediaries in managing their organisations, performing their daily work and dealing with their customers (immigrants and others) is an important, but often overlooked and still little known aspect.<sup>54</sup>

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<sup>54</sup> The Digital Undoc project in London, mentioned in Chapter 3, has developed a significant experience and some interesting reflections about this issue (see McDermott 2013).

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## 7. APPENDIX 1 – IN-DEPTH ACCOUNTS OF SPECIFIC MOBILE LEARNING PROJECTS

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The three contributions in this appendix concern some initiatives already illustrated in Chapter 3 and presented at the Barcelona workshop for which the authors accepted to provide the richer descriptions and reflections found below.<sup>55</sup>

The first one concerns the MoLeNet programme in the U.K. and focuses primarily on the educational potential of mobile learning for ESOL learners (English for speakers of other languages).

The second concerns three European projects carried out by the University of Florence and other partners and looks at the learning and social inclusion potential of mobile phones and other devices for young and adult immigrants.

The third presents the projects carried out by VIFIN (Resource Centre for Integration) in Denmark which used mobile phones and QR-codes for learning and to support everyday life and job-related need of immigrant users.

### 7.1 MOBILE LEARNING BY IMMIGRANT (ESOL) LEARNERS IN THE MOLENET PROGRAMME – FINDINGS, LESSONS LEARNED AND REFLECTIONS, BY CAROL SAVILL-SMITH<sup>56</sup>

#### INTRODUCTION TO THE MOLENET PROGRAMME

The MoLeNET programme was the U.K.'s largest and most diverse implementation of mobile learning to-date. It spanned 3 years - 2007-2008 (MoLeNET 1), 2008-2009 (MoLeNET 2) and 2009-2010 (MoLeNET 3). During the 3 years MoLeNET funded and supported 104 individual mobile learning projects involving 147 Colleges and 37 Schools or, put another way, 40,000 learners and 7,000 staff. The Learning and Skills Council (now the Skills Funding Agency) and the consortia taking part, led by Further Education colleges, together invested over £16 million in MoLeNET.

There are many definitions of mobile learning. The MoLeNET programme used the following broad definition:

*'The exploitation of ubiquitous handheld hardware, wireless networking and mobile telephony to facilitate, support enhance and extend the reach of teaching and learning'.*

The aims of the MoLeNET programme were to:

- Fund and support the introduction, or expansion, of mobile learning in the English Further Education college sector
- Explore the effectiveness and impact of mobile learning on teaching and learning and the issues and challenges to be addressed
- Identify and share good practice in mobile learning
- Explore strategies for developing sustainable mobile learning provision which is not dependent upon project funding

All the projects were supported by the MoLeNET Support and Evaluation Programme which was led by the LSN<sup>57</sup>. This was designed to:

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<sup>55</sup> The contributions were authored by the experts mentioned in the titles below and edited by Stefano Kluzer.

<sup>56</sup> Previously Senior Researcher at MoLeNET programme.

<sup>57</sup> Now 'in administration' – please see final note to this report.



- Assist participating colleges and their partners to implement mobile learning
- Provide continuing professional development (CPD) for the staff involved
- Provide an on-line environment for sharing knowledge and resources
- Support a mobile learning community of practice
- Support mobile learning expertise capacity-building
- Work with practitioners and their institutions to assess the effectiveness and impact of the initiative and projects

The services offered by LSN included programme management; information, expert advice and mentoring; face-to-face and on-line facilitated networking and knowledge sharing; face-to-face and on-line induction, continuing professional development and dissemination events; tools and materials; repurposed materials; action research including practitioner researcher CPD and support; programme evaluation; dissemination of research findings, good practice and lessons learned.

Support was provided by LSN staff (from the Technology Enhanced Learning Research Centre and e-Learning and Technology Teams), together with expert assistance from education sector and independent mobile learning experts.

The research and evaluation strategy developed by LSN recognised that each of the projects had their own aims and objectives, which varied considerably depending on the learners involved, the learning contexts, the subjects and level of study concerned, the technologies chosen, the pedagogy employed and local priorities being addressed. A practitioner-led action research strategy was employed. Action research is an approach that explicitly aims to encourage improvement and assist in the management of change – thus trying to make the research entirely relevant and useful and to ensure that a) mobile learning would not stop at the institutions once the funding ceased; and b) that once its usefulness had been demonstrated and measured that it would encourage further expansion and embedding of mobile learning in later years.

LSN also employed a variety of other methods of collecting data apart from the practitioner-led action research projects in order to produce a meta-analysis of the different projects' findings. This included monitoring and evaluation data from the project managers, projections of the distance travelled by institutions in terms of mobile learning adoption, SMS quizzes from learners and teachers, retention and achievement data analysis (predicted and actual), 'diary room' videos and focus groups from learners and teachers and geo-demographic context analysis (NB not all were used in all years). Projects were also encouraged to upload examples of the content they had produced to two MoLeNET services which were developed – MoLeTV<sup>58</sup> and MoLeShare<sup>59</sup> – to share with the college sector and people interested in mobile learning resources.

The mobile devices employed were many and varied including personal digital assistants (PDAs), mobile phones, smartphones, MP3 and MP4 players (e.g. iPods), other portable multimedia players, handheld gaming devices (ie Sony PSP, Nintendo DS), Ultramobile PCs (UMPCs) and netbooks.

#### **HOW THE FINDINGS OF THE MOLENET PROGRAMME CAN INFORM THE MASELTOV PROJECT**

The MoLeNET programme can help inform the MASELTOV project by reporting those findings relating specifically to mobile learning by ESOL learners. ESOL is an acronym which stands for 'English for Speakers of Other Languages' and means courses of English

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<sup>58</sup> A media-on-demand service which allowed users to upload media files, and then download them to play on mobile devices such as PSPs and iPods.

<sup>59</sup> A repository for teaching and learning materials, lesson plans, guides etc.



taught to people whose first language is not English but who live in an English-speaking country and need English to communicate in their daily life. However, the MoLeNET programme itself did not explicitly require projects to involve ESOL learners. Instead, potential projects took part in a selection process based on the applications made, judged by its Advisory Board on merit (according to freely available criteria) and an interview process. The Table below summarises the number of successful projects which took part in the MoLeNET programme which indicated at the outset that ESOL was one of the national priorities which they wished to address:

MoLeNET year	Total n. of consortia and individual projects taking part	Total n. of projects stating that ESOL was one of their national priorities
1	32	14 (where Languages and ESOL were a combined field)
2	30	10 for ESOL (2 for Languages)
3	22	8 for ESOL (2 for Languages)

This report contains the culmination of the data reported by projects related to ESOL learners. Another possible category of learners which could have been included would have been that relating to Black and Minority Ethnic (BME) learners. However, no projects reported data related specific to this group.

Unlike some groups of learners, ESOL learners are often very diverse which brings challenges to offering appropriate learning provision. Examples of their backgrounds could include that they are immigrant workers, from difficult-to-reach groups, refugees or partners of students who are settled for a number of years. They may have families and/or work. They may also have different levels of ability/competence in their first language, quite apart from their ability/competence in English. So the ESOL learners in any class will vary considerably depending on their age, aspirations, educational background, language background and aptitude for learning languages.

#### **MOLENET PROJECTS REPORTING FINDINGS RELATING TO ESOL LEARNERS**

The findings relating to projects which involved ESOL learners have been grouped together under the following headings:

1. Projects reporting *detailed* information about the use of mobile devices for teaching and learning with ESOL learners
2. Projects reporting *limited* information about the use of mobile devices for teaching and learning with ESOL learners
3. Projects reporting *anecdotal comments* about the use of mobile devices for teaching and learning with ESOL learners.

The following should be noted when reading these findings:

- All the projects had different overall aims and objectives, and developed their own research plans which addressed their own requirements and needs
- Some of projects took part in the MoLeNET programme in more than one year, but only involved ESOL learners in a particular year, and so only this year is shown
- Some projects involved ESOL learners, but they did not form part of the research cohort. Where this has happened, and findings related to ESOL learners, these have been reported

- Sometimes ESOL learners have not been identified as such but have been part of another group of learners, e.g. classified as Level 1 Skills for Life learners where some happen to be ESOL learners. For completeness, wherever they have been noted findings relating to ESOL learners have been included.

#### 7.1.1.1 PROJECTS REPORTING DETAILED INFORMATION ABOUT THE USE OF MOBILE DEVICES FOR TEACHING AND LEARNING WITH ESOL LEARNERS

Five projects reported detailed information about the use of mobile devices by ESOL learners.

##### **Ealing, Hammersmith and West London College (a MoLeNET 2 and 3 project)**

The aim of the project was to use Nintendo DS games as a tool for learners to assess their own multiplication knowledge and motivate them to continue to practice and assess this skill regularly. This was part of their Application of Number (for the Key Skills qualification) course.

Four groups of learners were involved following the BTEC Introductory Diploma courses - 2 ESOL groups (19 learners studying the IT@Work level 1 course, and 16 the Health and Social Care course) and 2 non-ESOL groups (7 learners studying the IT@Work Level 1 course, and 8 the science, level 1 course). They used Nintendo DS Lite games machines, together with 'Professor Kageyama's Maths Training', for testing purposes, with a CD-ROM being the teaching tool.

##### ***Findings relating to ESOL learners.***

The IT@Work group. After they sat their Key Skills' exam, it was decided that only those learners who had not passed the exam would continue to use the DS. However, it was found that this reduced those students' self-esteem in front of their peers, and may have contributed to their subsequent lack of enthusiasm for taking the device home/using it outside the classroom.

For the Health and Social Care students, where the devices were given to the whole group at the beginning of the course, 3 months before the exam, demonstrated showed positive results. Students' performance improved overall and all learners (female) spoke of increased enjoyment of maths lessons. They took ownership of the pace of their independent learning and there was positive peer pressure in comparing scores and self-testing using the software.

##### ***Lessons learned by the project***

- Playing the same game over a number of weeks can become repetitive and learners may lose interest
- Give learners the opportunity to rote learn their times-tables before giving them the games console
- Succinct testing before and after can help to determine the impact of the DS games on the learners' knowledge
- Collect feedback from the learners to check how they are progressing and to reinforce the use of the device
- Be aware of any limitations the software may have.

The author of this report was requested to assist the practitioner researcher at this college by conducting a post-study focus group with 10 MoLeNET 2 ESOL learners, in order to eliminate possible bias of the findings. Although the transcripts of this focus group are unavailable, it is remembered that the main areas of discussion involved the students' perceptions of the usefulness of the device, and the ease with which it could be carried and

could clearly explain the reasons for its use. To be able to use it out-of-college (one student was living in a hostel) was remembered to be a particular advantage.

The college also took part in the MoLeNET 3 programme. Some ESOL learners were involved and there is a video available of them discussing how useful the smartphone devices had been (to take photos, video, undertake research, download music and translate words using the ‘Babylon’<sup>60</sup> software and communicate with others. They also mentioned they had used it at home, college, on the bus, everywhere, even in the bath!). Further findings are unavailable, however the following is a reflection of the project made to an external researcher by the Deputy Principal (Richard Pilkington):

*“Learners who have been seen as traditionally low achievers have, for the first time, been seen as the best at something. For example, an ESOL learner whose level of literacy and speaking was very poor produced the best narrated video as part of a MoLeNET project. The learner was praised and has grown in confidence because of this.”*

### **Sheffield College (a MoLeNET 2 and 3 project)**

Sheffield College investigated whether the use of handheld games devices could be useful to improve and assess literacy skills, engage ESOL learners (especially those in the 14-19 age group) and improve learner confidence and autonomy. Each group of students used the consoles for 3 sessions, planned to develop the learners’ accuracy in reading aloud, punctuation, spelling, capitalisation, abbreviations and use of tenses. Session 1 involved the use of ‘Dr Kawashima’s Brain Training’ (to check their brain age), further sessions involved PictoChat<sup>61</sup> to develop literacy skills, such as:

- Crazy dictation – a short piece of work was dictated or read to the learners – usually just a sentence – and the person who could accurately text the sentence to the tutor was the winner
- Crosswords – the learners were asked to complete crosswords on the BBC Skillswise website. If questions needed to be answered, the tutor did this via PictoChat, so learners practised both their reading and writing skills

Learners were found to be enthusiastically engaged with the activities and needed little support. They appreciated the tutor wanting to explore new avenues for learning. However, younger students were more positive than adult learners, as they would have preferred to use specific literacy games on the DS (had they been available).

The tutor felt that the Nintendo DS was a good resource and could be used in a variety of ways for skills practise and reinforcement. Use of PictoChat made sometimes fairly dry literacy exercises fun and interactive and *“learners loved it to the point of rejecting their 15-minute break!”* The tutor offered the following tips:

- Purchase a good range of software. When the tutor was using the games, there were no games available specifically for literacy development, so using ‘PictoChat’ creatively was a partial solution to this
- Introduce the devices in a positive way and you will get a good response from the learners
- The tutor tried to connect the Nintendos to an interactive whiteboard, but could not get it to work. If this had been possible, it would have meant answers could have been displayed on the board instead of just on the device.

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<sup>60</sup> Babylon is a translation program and computer dictionary

<sup>61</sup> PictoChat is a program built into the Nintendo DS which allows users to text chat with up to 16 other users via the system-to-system Wi-Fi built into the device.

### ***Lessons learned by the project***

Games consoles can:

- Help to embed literacy, numeracy and ICT skills into the subject you teach
- Introduce learners to interactive content
- Encourage kinaesthetic learning
- Encourage visual learning
- Create awareness about ways to engage learners
- Give instant feedback
- Encourage autonomy
- Help with varying the pace of learning
- Provide differentiation

In their MoLeNET 3 project, Sheffield College went on to use their Nintendo DSs with ‘Brain Academy’ software to provide learners with alternative ways to understand mathematical formulas, and comics downloaded onto the iPod Touch, to enable learners to read material with visual cues for support (regarded as especially important for ESOL learners). Unfortunately no further details are available about this.

#### **West Thames College (a MoLeNET 3 project)**

West Thames College conducted a literacy project with over 100 ESOL learners (16-18 year old ICT learners and adult Hair and Beauty learners) and 10 teachers to develop the language skills of ESOL students whilst on work experience. They were provided with smartphones. The teaching staff used a variety of means to produce literacy activities, such as Moodle social-networking modules and blogging sites, for text-based dialogue which was intended to foster collaboration and scaffolding of learning across students in each group. The range of media included pictures, voice recordings, and short video dialogue once students and staff had become confident with text-based discourse. The group blogs were found to help improve both collaborative and independent learning - learners used these to post and share book reviews, video clips, voice recordings and photos. Discussions around these resources gave learners opportunities to practise their language skills, and many of the stronger learners posted comments on their peers’ posts which was further evidence of developing social and literacy skills.

The ICT students also received emails from teachers with activities to be completed and submitted. The idea behind this was to help learners to improve their work-related vocabulary and ICT skills in order to increase their employability. Hair and Beauty learners used videos they had taken as source material for discussions of practice and classroom-based writing activities, and as evidence to write reports. They were also used to assist learners practising different hairdressing techniques and beauty treatments. Both groups could also use them to collaborate and support each other if any problems were encountered whilst working in the different organisations.

Teaching staff reported that these activities led to increased levels of learner confidence, in their use of both English language and technology, and increased engagement. Communication was also found to have improved both peer-to-peer and with the teacher – a specific example of this was when they were unable to attend classes, they would use their project mobile phones to email each other. This was something they would not have previously have used their own phones to do, they liked having their college email accounts configured on the mobile phones provided.

The project also reported achievement (predicted) data relating to 65 ESOL students who took part in the research activities. This indicated that all learners were expected to achieve a pass in their examinations, which was higher than in previous years, but it was also noted that the project did not run long enough to establish conclusively whether or not this was due to their use of the smartphones. The college's action research findings concluded that *"learners' perceptions of learning changed over the course of the project, from something that happens in the classroom to something that can take place anytime, anywhere"*.

### ***Lessons learned by the project***

West Thames College noted that many ESOL learners find accessing English language learning resources outside of the classroom difficult. By providing mobile phones, they summarised that this allowed the learners to:

- access websites wherever and whenever they wished
- video workplace processes
- create resources
- record each other speaking to work on pronunciation
- communicate with peers and teachers via telephone, email and text message

When contacted by an external project researcher for comments on the project, the Vice Principal (William Elliott) stated:

*"We have been very pleased with MoLeNet; not only has it opened up the eyes of the students but the staff as well, who are not necessarily at the cutting edge of the technology. The staff and the students have really engaged with it in a positive way and I think we have got some people here now who are quite strong advocates for the process, not just the managers who are promoting it"*.

### **Working Men's College Consortium (a MoLeNET 3 project)**

The 'MoleMentor ESOL' project involved 361 learners and 35 staff. The project wished to encourage collaboration amongst learners as a way of improving ESOL learning. One of the main ways to do this was via the use of MoleMentors – encouraging the more confident and competent students to provide mentoring support to their peers in the use of technology (UMPCs, Sony PSPs, iPod Touches, video cameras and digital voice recorders). The MoLeMentors worked with learners from pre-Entry Level up to Level 2, and had their own support networks (using blogs, Skype and email).

The project used different techniques with mobile devices to enhance aspects of their courses, including support in the classroom and at home, which encouraged communication and team-working between the mentor and mentee:

- Using netbooks with Microsoft Photo Story<sup>62</sup> software to improve ESOL learners' interview skills. Learners role-played a formal job interview, allowing them to practise speaking, listening and employability skills. This was recorded and then the learners created a picture narrative on the netbooks to be analysed by the teacher with feedback given via email. The picture narratives could also be projected onto a whiteboard, allowing peer critique and group learning. Similar tasks were also completed using flip cameras with higher level learners.

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<sup>62</sup> Microsoft Photo Story is a free application that allows users to create a visual story from their digital photo. The software allows users to add narration, effects, transitions and background music to photos to create a Windows Media Video movie file with pan and zoom effects.



- Netbooks with integrated webcams were provided to lower level learners to record content outside of college such as labels and ingredients' lists. This could then be included in written work at the learner's own pace.
- Learners often had limited classroom-based contact time. This was supplemented using the netbooks and Skype, encouraging group bonding amongst the cohort and additional communication with teaching staff.
- Communication outside of the classroom was also encouraged through the MoLeMentor system, as well as a blog to which all members of the class were encouraged to contribute.
- Learners were provided with iPod Touches which they used with dictionary and SimpleMind+<sup>63</sup> applications. These apps were used to assist learners when creating written text.
- Sony PSPs were used to help enhance learners' vocabularies. They recorded family routines and shopping trips and then used the recordings to assist the learning of new words. This was found to be very effective with early entry-level groups.

It was reported that the use of mobile devices helped transform the ordinary classroom-based delivery using personalised learning, and was found to stimulate and engage learners both inside and outside the classroom. The project enabled enhanced communication/collaboration and interaction between teachers and MoleMentors across the Consortium. The use of the iPod apps changed the way that teachers planned and managed their sessions to enable such collaboration/group interaction.

It was further reported that learners' attendance and behaviour improved and their participation and achievement increased. The amount of homework submitted increased with their improved access to the VLE. The MoleMentors' confidence also grew as they developed skills in teamworking and mentoring. The findings from the action research indicated increased retention rates, and an increase in student motivation and engagement, leading to better class attendance.

There was also evidence that the accessibility and communication aspects afforded by mobile technologies supported inter-generational learning and community cohesion for ESOL students.

The Consortium stated it recognised the benefit of integrating mobile learning in future ESOL delivery, and planned to do this through blended and online materials. They are now exploring the implications of a new model of learning which involves 75% class-based learning and 25% outside of the classroom.

### **The Hull College Group (a MoLeNET 3 project)**

Hull College investigated the use of mobile technologies to encourage communication and engagement by ESOL learners. The ESOL tutors used JANETtxt<sup>64</sup> to send 'thinktexts' to learners as homework. The texts encouraged learners to think about a specific subject area in English, the aim being to help to generate internal dialogue. Learners prepared their thoughts in response to the question they had been sent prior to presenting these in English to other learners during the next lesson. Research findings found that learners who participated in the ESOL 'thinktext' activity produced more lucid answers and were motivated by the texts and the chance to 'think' rather than write their answer. This gave them more opportunity to reflect on what they were going to say and the appropriate vocabulary.

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<sup>63</sup> A mind-mapping tool available on iTunes

<sup>64</sup> JANETtxt is a comprehensive suite of secure SMS messaging services which allows users to send and receive text messages to and from relevant groups and individuals. It has been designed specifically to meet the requirements of the UK Education and Research Community.

Communication between the ESOL learners and with tutors was also promoted using the PictoChat function of the Nintendo DSi. ESOL tutors created instant ‘chat-rooms’ where learners could communicate and collaborate. They were also used for informal assessment, making routine spelling tests more entertaining and engaging and less intimidating for the learner, as well as providing immediate feedback. Learner collaboration through chat-rooms allowed learners to practise their written communication, as well as providing a forum in which those learners who lacked confidence in front of their peers felt more comfortable about contributing.

Hull College also reported that all ESOL learners demonstrated a 100% achievement rate on their ESOL course, and there was an example given of a teacher undertaking some self-directed Continuous Professional Development. He did this by downloading ‘Who killed Angela Spelling?’ Flash software from BBC Skillswise website and loading it onto his students’ PSPs so that they could work together to complete the tasks in the game, along with an associated worksheet. In this way the teacher was finding new ways to engage with learners beyond the ordinary learning environment.

The Deputy Chief Executive and Deputy Principal of Hull College (Gary Warke), when interviewed by an external researcher, commented:

*“The other good area where we have done a lot of work with the project is in ESOL through the purchasing of the DS. There's some really excellent work going on there in terms of the use of that technology to improve participation and engagement in improving vocabulary and spelling”.*

#### 7.1.1.2 PROJECTS REPORTING LIMITED INFORMATION ABOUT THE USE OF MOBILE DEVICES FOR TEACHING AND LEARNING WITH ESOL LEARNERS

Six projects reported limited information about the use of mobile devices by ESOL learners.

##### **Birmingham College, formerly Matthew Boulton College (a MoLeNET 1 project)**

Matthew Boulton College involved ESOL and NEET<sup>65</sup> learners in a numeracy uplift project using Sony PSPs. It was reported that the games used were fun for the students, but were also designed to test their numeracy skills. The project found that student retention increased and the students also tended to be better-behaved in the classroom. Elsewhere, the project reported that ESOL learners used UMPCs to download and watch foreign language films and used Skype on their mobile devices to practice communicating with others learners in English, and family and friends from their home country.

##### **Kingston College (a MoLeNET 2 project)**

Kingston College’s KAPTIVATE project involved 565 learners in 15 subject areas, introducing iPod Touch devices, and associated mobile recording equipment, to support the process of creating, accessing and learning from podcast resources. The project addressed 2 areas – student-peer teaching and assessment. For student-peer teaching, involving learning generated podcasts, it was found that they were very useful for explaining and demonstrating concepts and skills to their peers. It was noted that student-generated content was especially important for ESOL learners (and in teacher education and fashion too).

##### **Lowestoft College (a MoLeNET 1 project)**

Lowestoft College examined whether the use of mobile devices had an impact on retaining students on courses and their achievement. Three groups of students took part, one of which

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<sup>65</sup> NEET refers to people who are not in education, employment or training.

was ESOL Entry level 1 students. The retention benchmark for this course was 79%, and in 2007-2008 this group achieved a 90% retention rate. It was reported that all learners indicated that the technology had made their learning more interesting and had encouraged them to stay on the course (retention rates also increased for the other 2 groups who took part). Achievement data relating to the ESOL learners also indicated an improvement from 50% to 83% and the college concluded that the use of mobile technologies “*had been influential in improving motivation*”.

#### **Redbridge College (a MoLeNET 2 project)**

Redbridge College wanted to examine whether the use of UMPCs in the subjects of music, media and hairdressing would help to retain students and impact on their success. This was a comparative study. One group of hairdressing and beauty students was an ESOL group. It was found that all MoLeNET groups increased their achievement rates, and the general improvement level was 4.6%, and 5% above the previous year. It was reported that all learners were very enthusiastic about the use of mobile devices and were able to extend their learning beyond the classroom as well as access resources from non-IT areas of the college.

#### **Stoke-on-Trent College (a MoLeNET 2 project)**

Stoke-on-Trent College wanted to find out if mobile learning could improve adult learners’ experience and skills’ sets. Various groups of students took part, NEETs, ESOL learners, Prince’s Trust students – many had challenging behaviour and were hostile to the concept on education. A variety of methods were used such as SMS quizzes and Photostory on their own phones, and lesson openers and closers. There were no specific findings relating to the ESOL group, but increases in maths skills and general behaviour (task focus improved, classroom noise decreased) and changes in group dynamics were reported. Attendance also improved across all groups. The college reported that the best results came when staff had high expectations, felt comfortable with the devices before the project started and had good IT support.

#### **Tower Hamlets College (a MoLeNET 1 project)**

Tower Hamlets College used PSPs with Skills for Life ESOL learners within the college and on trips, when they used them to record and reflect on their experiences which would have previously been carried out with pen and paper. It was reported that they enjoyed the arcade quality of the images taken and appeared to discuss these amongst themselves to a greater extent than those taken on their own mobile phones. The images were used in class afterwards, practising tenses and writing about their experiences – the students were reported as being enthusiastic in doing these tasks, about the visual stimuli, and in visiting the relevant website to compare experiences etc. The College believes that mobile technology ensures continuity of the learning experience and has gone on to develop links with local museums.

The College also used PDAs with ESOL groups which had multimedia gaming software installed as an incentive for those who completed their work successfully. It was found that students were engaged with their work and encouraged to complete their work more quickly.

#### **7.1.1.3 PROJECTS REPORTING ANECDOTAL COMMENTS ABOUT THE USE OF MOBILE DEVICES FOR TEACHING AND LEARNING WITH ESOL LEARNERS.**

In the MoLeNET 1 programme, limited anecdotal evidence was provided by the projects of the use of mobile devices by ESOL learners. This has been summarised below as it illustrates a variety of different ways they have been used to improve language skills:

Projects	Report of using mobile devices with ESOL learners
Huddersfield Consortium	ESOL learners used mobile devices for community projects involving interviewing family and community members to improve literacy and communication skills
Coulsdon College	Four learners from China used mobile devices for spoken and written English
Lowestoft College	Learners took devices home to use with family members to support the development of their literacy and communication skills
Worcester Consortium; New College Swindon Consortium and Oaklands Consortium	Reported on the usefulness of podcasts for language and ESOL learners – watching, listening to and creating resources
Oaklands Consortium (continued)	A Spanish teacher with an AS learner, and a French teacher with an A2 learner practised their speaking and writing skills using Twitter for communication. The work was uploaded to the discussion board of the course Blackboard. Very successful pilot.
Gloucestershire College	The use of a podcast server will make things simpler for practitioners taking part in MoLeNET 2

#### SUMMARISING THE FINDINGS RELATING TO THE USE OF MOBILE TECHNOLOGIES BY ESOL LEARNERS

MoLeNET projects have used mobile technologies to support ESOL learners.

The use of mobile technologies to record learners speaking and to enable access to online audio/video recordings and podcasts has helped learners to develop their **speaking and listening skills**.

The use of blogs and social networking has encouraged **language development** and **vocabulary acquisition**, and material can then be reinforced in group and class discussions which encourages **collaborative learning**.

Mobile technologies can also support the development of **literacy and writing skills** by engaging learners in interactive activities, such as using ‘PictoChat’ on the Nintendo DS and Microsoft ‘Photo Story’, and enhance other skills such as **numeracy** and **technology** as is required by the courses being undertaken.

Mobile technologies also affords improved **communication**, both peer-to-peer and with tutors. Being able to access the Internet outside the classroom has also proved valuable to gain **access** to language learning resources, which can be downloaded to support **independent learning**, and other services used such as **translation** from their first language and use of email.

Many ESOL learners are mature students and may have family or work responsibilities to manage alongside their course. These learners have benefited from the **flexibility** that handheld technologies enable, including allowing them to learn at times and in places that are convenient for them. Mobile technologies have also encouraged and facilitated **inter-generational learning** and **community cohesion**.

#### Final note to this report

The MoLeNET programme finished in September 2010. LSN, which ran its Support and Evaluation Programme, went ‘into administration’ at the end of 2011. This report has been

produced in April 2012 using the published documentation from the MoLeNET programme, supplemented by findings from the unpublished MoLeNET 3 programme report and the author's personal knowledge and reflections. As such, it cannot claim to fully represent the findings of the MoLeNET programme, because it has not been possible to access background research and project findings, nor can it represent the views of the MoLeNET Programme team. For reference purposes, the MoLeNET website (<http://www.molenet.org.uk/>), which also linked to the MoLeTV and MoLeShare websites, is currently disconnected (April 2012) - as it was linked to the LSN website – it is hoped that this can be reinstated in the future.

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## 7.2 MOBILE LEARNING IN PRACTICE. THREE PROJECTS ON ICT, LEARNING AND SOCIAL INCLUSION, BY MARIA RANIERI<sup>66</sup>

### ENSEMBLE

#### **Project description**

ENSEMBLE stands for European citizeNShip lifElong MoBile Learning and was funded by the European Union within the Lifelong Learning Program 2008-2010<sup>67</sup>. The project was promoted by the Department of Education of the University of Florence in partnership with the French District of Yvelines (France), the Town Council of Prato (Italy) and of the English section of the technology company GiuntiLabs.

The project's aims were to develop training programs based on the use of mobile devices addressed to citizens at risk of social exclusion, and to determine whether, and under what conditions, mobile learning can effectively offer opportunities to encourage socio-cultural integration.

The participants were lower middle school students and their parents, primarily, but not exclusively, first and second-generation immigrants. Their linguistic skills were not uniform, though most of them were certified at lower intermediate levels, especially parents. Moreover, the latter did not usually participate in their children's school life and teachers had difficulty contacting them. Lastly, the participants' personal technological devices, particularly those owned by the immigrant citizens, were mainly not the "latest generation" of mobile phones. The testing took place in two different European cities: in an area of the town of Prato, where there is one of the largest Chinese communities in Italy, and in Versailles, in the Yvelines district, which is characterized by a large presence of African immigrants.

To deliver the educational content, MMS (Multimedia Messaging Service) messages for mobile phones were used with parents and podcasts for MP3 players with students to be downloaded via the Moodle platform.

The educational program revolved around four themes relating to citizenship education in an intercultural and European perspective, and to pre-adolescent life and related problems within and outside school, observed from both the students' and the parents' point of view. The intention was to enhance the participants' awareness of the rights and duties implicit in social life within multicultural societies, and at the same time to encourage school-teacher-student communication.

#### **Main results**

At the end of the process, the project's results were organized in four main categories related to technologies, communication, learning and participation; three different points of view were taken into consideration: those of students, teachers and parents.

#### ***Technological dimension***

In Prato, more than half (65%) of the students found it easy to download podcasts from the platform and listen to them on an MP3 player. On the contrary, teachers claimed that their students' computer skills were not adequate to deal with the tools in the projects. As regards the parents, technical constraints related to the use of mobile devices were one of the crucial points of the experiment because of the need to identify the most compliant format suitable for the participants' diverse phone models and service operators. Notwithstanding this, almost

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<sup>66</sup> Maria Ranieri, Department of Educational Sciences and Training and Cultural Processes, University of Florence, Italy. This contribution is based on Ranieri M. (2011).

<sup>67</sup> The project leader was prof. A. Calvani supported by P. Ravotto, while Dr. M. Ranieri and Dr. G. Bonaiuti were responsible for the scientific coordination of the project. The website of the project is: <http://www.ensembleproject.org>.

all the parents (81%) considered MMS messages a useful way to receive information both from the school and the local government.

In Yvelines, students did not encounter any particular difficulties in using the proposed technologies. Half of the students believed that the activities carried out during the project were helpful in solving personal difficulties related to the use of computers. The teachers could use the technologies easily and they greatly appreciated the initial phase of technological training. Most of the parents were already familiar with sending SMS and MMS message. However, one third of the participants had to reconfigure their mobile phones in order to view the contents.

### ***Communicative dimension***

In Prato almost 70% of the students found podcasts' content simple and clear. One third of the students, however, complained that some were too long and they had difficulties understanding some vocabulary. Most of the teachers appreciated the quality of the communicative format used, highlighting the positive effects on the students' participation and motivation. The others considered some parts of the listening activity too difficult for some students. On the whole, parents liked the pleasant messages - 26 users (70%) and their brevity - 24 users (64%), but not their frequency, which was considered excessive by 27 users (72%).

In Yvelines the students enjoyed listening to the podcasts, which they considered stimulating. Most of the teachers pointed out that the listening activity was particularly useful and appreciated by the students. Teachers also noted an increase in cooperation among students, particularly regarding technical problems. 70% of the parents claimed that sometimes the MMS messages were too long, while 50% claimed that they were too frequent.

### ***Learning dimension***

With regards to learning, in Prato almost 70% of the students found the use of technologies helpful for learning and discovered that ICT can be used not only for entertainment but also for other aims. For example, one student commented: "I learnt things in a different way and I learnt something new about technology". Teachers rated students' performance between unsatisfactory and excellent. Half of the parents were able to answer the final questionnaire on the contents of the project.

In Yvelines, students admitted that the podcasts helped them to better understand the topics discussed during the courses. They managed to deal with the writing stumbling block and to immediately look for extra information or missing definitions. The French teachers realized that the students were focused when they were listening to the podcasts with their headphones and noticed that this way of working rendered students more responsible. In this way, they could move from one student to another and provide individual feedback. A few parents answered the short questionnaire, administered at the end of the experiment.

### ***Participative dimension***

Finally, as regards participation, in Prato half of the students claimed they collaborated actively in the working group activities and 70% of the students demonstrated a better understanding of diverse cultures. However, during a public meeting some students complained that others provided an insufficient contribution which was detrimental to the group work. Most teachers claimed that technology-based group work did not reduce cases of exclusion, especially for some students' language problems. On the whole, as the teachers pointed out, involvement of the parents in their children's school activities and in scholastic life was marginal. Among the parents 21 (56%) participated in the meetings organized by the

school, 22 (59%) helped their children at home to do the Ensemble project activities, 19 (51%) discussed the proposed topics with their children.

In Yvelines, most of the students judged the group work positively and believed that the topics dealt with in the modules improved their understanding of different cultures. Teachers realized that the use of podcasts made learning easier with students who had difficulties in reading. Thus, these students, who very often feel left out, felt part of the class and participated more willingly in class activities. As regards relationships with parents, teachers have not noticed any significant changes. Few parents took part in the meetings organized by the school. Although contacts have improved, overall, parents do not think that relationships between school and families have improved as regards communication and participation.

To sum up, people participating in the project expressed different feelings and impressions. In most cases students appreciated the project, indicating their willingness to repeat the experience. They also liked the opportunity to create, along with classmates, their products because this gave them the opportunity to confront with their peers and understand, as one student wrote, "What they really think". At the same time, most of the students indicated that they had difficulties in listening to the podcast and deemed this activity too challenging.

Teachers found it useful to use the podcasts and PC to improve understanding of content and reduce barriers to learning, stressing the ability of these tools and topics to motivate students. Only a few have indeed expressed their doubts on the effectiveness of testing in relation to, firstly, the difficulties expressed by some students with low levels of proficiency in the Italian participation in the work group, and then to the weak technological capacities of some of the students.

With regard to parents, as in many other experiences, it emerges that participation and interest are not directly related to the use of technology. Generally speaking, the results on parental participation in school activities demonstrate their low involvement in the school life. The topics dealt with provided the opportunity for discussion in only a few cases and the strategies implemented to reach parents were not always appreciated.

## **MYMOBILE – EDUCATION ON THE MOVE**

### **Project description**

Mymobile - Education on the Move is a project on mobile learning funded by the EU within the framework of the Grundtvig program for the period 2010-2012. It is coordinated by bildung.com medien +, a nonprofit organization based in Germany, dealing with media education and mobile learning in schools. Other partners are the Educational Technologies Laboratory of the University of Florence, the London Mobile Learning Group of London Institute of Education and Media Animation, all active in the field of theory and practice of media, technologies and learning.

The main purpose of the partnership is to compare European approaches and methodologies in the field of mobile learning and to develop guidelines on the use of mobile devices to support adult education for lifelong learning.

The target group of the project is made up of teachers, educators and EDA trainers, particularly those working with disadvantaged or marginalized groups, in order to foster greater cooperation between schools and other agencies working in the field of media and adult education. These actors are involved at various levels as potential multipliers of the project results.

To achieve the objectives mentioned above and involve the beneficiaries of the project, the partners have planned the following actions:

- *international mobility*: the aim is to promote exchange of visions and experiences on mobile learning between the partners in order to build a common lexicon on the topic and identify possible instructional strategies and educational uses of mobile devices;

- *national workshops*: to shift from the sharing of experiences to the involvement of the beneficiaries and start developing general guidelines. Four workshops were designed and carried out at the national level with the aim of testing specific instructional methods based on the use of mobile devices;
- *evaluation of national workshops*: through visits and virtual meetings, partners were involved in a mutual process of peer reviewing in order to evaluate the impact and the results of the national workshops;
- *definition of guidelines*: at the end of the process (sharing, designing and testing, evaluating) a set of methodological recommendations for practitioners and designers will be developed.

We will focus here on the activities carried out in Italy and managed by the research unit of Florence. The main idea of the workshop entitled “Mobile 2.0 to support visibility and job search” was to help adult disadvantaged learners to develop digital skills for promoting self-representation and increasing personal visibility for job searching and placement. In particular, the focus was on how to design, implement and disseminate a multimedia CV (curriculum vitae) by using mobile phones and web 2.0 tools.

The workshop was led by the academic staff in collaboration with LinksUp<sup>68</sup> researchers, within the context of TRIO, the official e-learning platform of the Tuscan Region.

The target group was made up of people in search of a first job, people with difficulties in finding new jobs and requiring media skills and competences, and immigrants looking for new opportunities in the Italian labour market.

The workshop involved about 15 people aged 25-60, some coming from Tuscany, others from Romania, Morocco and Peru, and was structured as follows:

**Phase 1: Technological familiarization.** This phase aims at providing participants with basic knowledge on ICT’ concepts and make them familiar with their mobile phones’ functions.

**Phase 2: Getting started with Multimedia CV.** This phase focuses on the presentation of the characteristics and advantages of a multimedia CV. Different types of multimedia CVs, depending on the aim, context and the individual’s profile, are presented.

**Phase 3: Brainstorming on their own CVs.** In this phase, participants are guided in a brainstorming session on the possible subjects to deal with in a CV, the possible aims and targets, and also on multimedia contents to be gathered or created through the use of mobile devices.

**Phase 4: Designing and developing a Multimedia CV.** This phase focuses on methods and techniques to design and implement a multimedia CV, from storyboarding to the use of specific devices to implement it. At the same time participants start the creation of the storyboard.

**Phase 5: Implementing and disseminating their own Multimedia CV.** The last phase is dedicated to the gathering of content such as images and audio and to the creation of the multimedia CV. Once the multimedia CV is completed, it can be disseminated through the web.

The methodological underpinnings which guided the design of the instructional activities within this scenario take into account the specific needs of the target group. They can be summarized as follows:

- 1) In the initial phase a special attention must be put on socialization between group members and staff in order to promote trust and willingness to share. These are

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<sup>68</sup> LinksUp is a European project on digital technologies and social inclusion with a special focus on policies and practices: <http://www.linksup.eu>.

necessary components for telling stories about oneself and for personal reflection as well as for increasing motivation;

- 2) Concerning the use of technology, a strategy of gradual appropriation should be adopted, in order to make the cognitive load sustainable for participants and to respect the individual time of mastery development in the use the available tools;
- 3) A learning by doing approach is suggested, in order to always integrate theory into practice and support autonomous learning strategies, even at a distance;
- 4) Individual work should be favoured to maximize the level of personal involvement.

Mobile devices such as learning tools were considered in a twofold perspective, i.e. as tools to gather visual information about one's life context to be used in the multimedia CV and as tools to interact with students. A blog was implemented to support content delivery and sharing, and interaction among trainers and participants. At the end of the process, all the participants created a first draft of their multimedia CVs to be shared in the blog.

### **Main results**

We now look at the results by taking into consideration the participants' point of view and their feelings on the impact of the workshop on their skills, self-esteem and self-promotion.

Before starting the workshop, participants were asked to answer a questionnaire to provide socio-demographic information. It emerged that they had different educational and working backgrounds (from agriculture to nursing), whilst sharing a common lack of familiarity with digital technologies. Almost all stated that their use of computer and the Internet as well as other tools such as mobile phones and digital cameras, was very low. Most of them did not know the potential of Web 2.0 and only used their mobile phone to make and receive calls.

Another questionnaire was administered at the end of the workshop. Participants stated that introducing themselves to each other and building relationships among peers were pleasant activities, but they found it difficult to select information and images related to their past experiences, and thus create the multimedia CV. Moreover, they found using the blog helpful in providing support for lab activities, but some participants were dubious about the usefulness of the mobile phone in education. Almost all said they were interested in repeating the experience.

In terms of learning and technological knowledge, some participants declared that the workshop had a positive impact on the improvement of their technology skills, and promoted their interest in Web 2.0 tools. Others pointed out that the workshop should have been longer in order to get the full benefit from its content.

As regards the objective of improving self-narrative skills and enhancing professional development, all agreed that the course strengthened their self-esteem and confidence in their own abilities, and improved their awareness of professional expectations.

Considering the issue of relations and social inclusion all participants declared themselves to be very satisfied, as the workshop allowed them to build new contacts, use new methods for social self-promotion, take advantage of new means to participate in social networks and improve job expectations.

To sum up, the feedback from participants was very positive on several aspects: they found the multimedia CV to be a valuable means for promoting themselves in the job market and an adequate tool to highlight the strong points of their personality. However, due to participants' low starting levels of digital abilities and the limited time available, the workshop did not allow people to develop the technical skills and knowledge advocated by the participants.

Two months later researchers contacted the participants and ran a focus group with the aim of evaluating the extent to which any workshop-related changes had happened in the professional lives of participants and whether participants' expectations had been realized.



The conversation with participants started with a general question on their feelings and impressions about the multimedia CV. All of them declared their satisfaction, but underlined that they were not be able to use their final products.

With regard to their perceptions about the final products, almost all the participants were satisfied with their own productions. In comparison to many training courses, in this case, the outcome was a concrete and visible product made by the attendees and this was judged to be positive. Moreover, all the participants believed that this tool could be really useful for finding a job and expressed trust in technologies as tools for business or communication: “They represent the future”, some participants said.

Even the mobile phones were perceived as fundamental tools for the future with great potential for work and communication, but none of the participants was able to fully exploit their potential yet, mainly due to inadequate levels of knowledge and skills.

#### **PIAGGE MOBILI<sup>69</sup>**

##### **Project description**

Piagge Mobile is a project carried out on February-March 2011 at Piagge, a working-class neighbourhood in Florence, characterized by a large number of broken families with low income, immigrants, and quite a few young people at risk of social exclusion. Since 2008, an after-school service for youngsters aged 11-16 has been promoted by local community volunteers.

In 2011, within this service an action-research project was developed focusing on the construction of individual and collective narratives through mobile devices and social networks. In particular, the project involved 15 teens aged 11-16, 4 educators and 2 researchers. The aim was to investigate whether the pedagogical use of such familiar devices could have a positive influence on young people involvement in educational activities, and also evaluate whether the collective mobile writing experience could contribute to the development of their self-expression, thus improving their self-representation and that of their community.

The activity started with a brainstorming on mobile functionalities to explore teens’ pre-existing skills and knowledge about mobile media. After this initial phase, teens were stimulated to share their pictures, images and music from their mobile phones, and to begin inventing stories inspired by their daily life. The next step was to continue telling stories through a collective writing exercise based on the use of SMS and FacebookMobile. The exercise ended up with the creation of six stories of different length and topics, and one of them was represented and video-recorded.

##### **Main results**

The project brought about three main results on the potential of mobile storytelling for self-expression and self-representation of young people at risk. First of all, using multimedia as an informal resource seems to have stimulated teens’ self-exploration. From the beginning, participants appropriated all the available media and started exploring each other, discovering their bodies, reflecting on themselves. The presence of a screen prompted them to observe each other and comment on their representations.

Another result pertains to the positive impact that media had on teens’ engagement. Indeed, if at the beginning several obstacles (lack of technical skills, different ages, low level of self-esteem etc.) prevented teens from building their own narratives, the use of mobile media encouraged them to build and share stories as also testified by the final products. Of course, the use of media cannot be considered the only factor influencing the increase of teens’

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<sup>69</sup> The project was carried out by Maria Ranieri, Isabella Bruni and Fabrizio Martini, and was supported by Le Piagge’s Community (Florence, IT).

involvement, but using popular media such as mobile phones was clearly an effective strategy.

Other comments are about old and new media literacy. The stories produced by the teens were very short and full of mistakes. The poor content and misspelling seem to indicate children's linguistic difficulties, as testified also by other studies on the topic. Therefore, although young people have been early adopters of mobile technologies, individuals may have unequal linguistic and media skills. From this perspective, the use of digital media seems to reinforce pre-existing divides and this would request a stronger engagement of public agencies in reducing inequalities with the development of technical, social and linguistic skills.

## CONCLUSIONS AND RECOMMENDATIONS

The projects illustrated above do not provide enough data to draw generalizations about the impact of mobile learning on social inclusion. However, when considering them together with the analysis of theoretical approaches to mobile learning, we can identify some gaps between the "hopes" and "reality" of ICT in education and their potential for emancipation. These gaps can be grouped into four main categories: further research needs; technological access; motivation and expectations; digital competences and skills.

*Further research needs.* Whilst the history of mobile learning goes back to the 80s (Kukulska-Hulme et al., 2008), there are many issues in this field that have relevant consequences for education and social inclusion, and that need to be further investigated. Until recently the emphasis on technical aspects prevailed, whilst pedagogical and cultural issues were underestimated. Although recent approaches to mobile learning have shifted the focus from the mobility of the devices to the student's mobility and the context of learning (Sharples, 2005) in addition to concepts of agency, structure and cultural practices (Pachler, Bachmair, Cook, 2010), an emphasis on technologies as drivers of change still prevails (Selwyn, 2011). Indeed, ICT and mobile devices cannot promote people participation by themselves: even though digital technologies such as blogs, wikis, Twitter and so on, are defined as "participatory media", participation remains a value as well as an attitude and as such it has to do with culture rather than technology. Inadequate attention towards the cultural practices of using mobile devices and the media appropriation process risks leading to the flawed conclusion that ICT provision is a sufficient condition for their adoption.

Another relevant issue pertains to the evaluation of the impact of mobile learning, especially in disadvantaged contexts. Evaluation of the effectiveness and the impact of an innovative learning activity is always complex. Scholars who have extensively researched on the evaluation of educational innovation, show how manifold variables, attributed to individual psychology, interpersonal and collective relationships, institutional and organizational aspects, local and national political decisions and so on, come into play. The levels involved are, therefore, multiple and it is not always easy to deal with this complex web of links and relations. The matter becomes even more complex when dealing with mobile learning. Scholars who have dealt with this issue emphasize that research in this regard is still underway and needs further efforts (Traxler, 2007; Arrigo et al., 2008).

*Technological access.* Despite mobile devices and the Internet being widely spread, people have very different levels of access to technologies. Mobile phones come with many different levels of complexity, some are characterized by very basic functions whilst others support multimedia applications and Internet navigation. Obviously, people who have the latest phone models can access different services and undertake different activities through their tools. Based on our experience, we cannot state that there is a correlation between an individual's socio-economic background and the type of mobile phone they own, but in the Ensemble

project the possibility of multimedia communication through mobile phones proved to be lower than our expectations. For the most part, people, especially the parents, did not have the latest generation of mobile phones and were unfamiliar with the use of MMS messages: their communication being primarily based on the use of voice and text messaging (SMS).

With basic mobile phones, it is very difficult to go beyond the idea of content transmission. In order to explore the possibilities of creating real learning environments based on communication through mobile phones, we should use smartphones, and exploit their potential for Internet connectivity. But at the moment not everybody can afford such a solution.

*Motivation and expectations.* It is well known that motivation and expectations have a high impact on people's agency and self-esteem. The use of technologies in a learning and social process may play an important role in reshaping motivations and expectations, with implications for people's perception of their own capacities and skills. This should bring us to pay great attention on such dimensions and on the delicate mechanisms that they generate. From this perspective, the experiences carried out in MyMobile and Piagge Mobile highlighted two very important aspects relating to motivations, attitudes and expectations towards use of mobile technologies. First, it seems that in the case of individuals with low level of digital competence (particularly with disadvantaged adults), the use of new technologies is often accompanied by a high level of expectations. So, training promoters should pay attention and avoid frustrating these expectations. But at the same time, they should try to balance some attitudes that tend towards an ingenuous technological determinism. Therefore, it is important to encourage gradual media appropriation processes based on the development of socio-technical skills, reducing the risk of cognitive overload and the feeling of being inadequate.

When coming to young people, the use of new technologies seems to be often characterized by high enthusiasm and a strong exploratory capacity, but it is not always balanced by the capacity of reflecting and taking a distance from them. In addition, mobile technologies are part of their everyday life, and they are usually considered as entertainment tools or as tools for interpersonal communication. Therefore, possible resistance to the re-signification of these tools in the at school or elsewhere can emerge. To address this issue, it might help to clarify from the beginning the benefits of the novel suggested use, thus overcoming some cognitive rigidities and bringing young people to a more flexible use of the new media technologies.

*Digital skills and competence.* As shown by research on the digital divide (Norris, 2001; Hargittai, 2002; DiMaggio et al., 2001; van Dijk, 2005), digital inequalities between people depend not only on having or not having ICT, but also on their ability to effectively use them (Ranieri, 2008). In this perspective, the focus should be put on improving the use of ICT and related skills rather than on increasing the availability of technological equipment. The concept of "digital literacy or competence" becomes fundamental: this competence "involves the confident and critical use of electronic media for work, leisure and communication. These competences are related to logical and critical thinking, to high-level information management skills, and to well-developed communication skills. At the most basic level, ICT skills comprise the use of multi-media technology to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in networks via the Internet"<sup>70</sup>. According to this definition, digital competence not only includes simple procedural skills, but also encompasses high level abilities in logical and critical thinking, information management, and communication<sup>71</sup>.

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<sup>70</sup> See on the Internet: [http://ec.europa.eu/education/policies/2010/doc/keyrec\\_en.pdf](http://ec.europa.eu/education/policies/2010/doc/keyrec_en.pdf).

<sup>71</sup> For further analysis see: Calvani, Fini, Ranieri & Picci (2012).

Coherently with this framework, one of the main issues that emerged during the workshop of the MyMobile project was the contrast between participants' expectations and their real technological skills. Indeed, even though all believed in the great potential of digital technologies, it seems that current gaps in knowledge and skills make technologies a barrier rather than a driver for democratic access to communication and information.

The recognition of these gaps represents an important step towards the identification of effective strategies to improve social inclusion. Indeed, there is no "magic bullet" to reduce exclusion and merely providing people with technologies will not enable them to take full advantage from ICT.

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### 7.3 **MOBILE LEARNING EXPERIENCES AT VIFIN IN DENMARK, BY ANNE CHARLOTTE PETERSEN<sup>72</sup>**

Videnscenter for Integration (VIFIN, Resource Centre for Integration)<sup>73</sup> was established in 2001 by the Vejle Municipality to facilitate the integration of immigrants into the Danish society. Its flagship program developed over the past 8 years involves the teaching of Danish as a second language using several digital platforms. In this contribution we illustrate the main experiences which have made use of mobile phones and other devices.

#### **MOBIDIC**

In the end of 2008, Vifin developed a mobile dictionary called Mobidic. It was meant to be an information tool for immigrant workers in the transport sector, the construction industry and social health services and it contained words and phrases connected to the three areas. Besides area-related words and phrases, the tool also gives access to additional useful content (information, dialogues etc.) about job interviews, working in Denmark, living in Denmark, safety issues, working rules and work environment. Mobidic was developed in collaboration with unions and professional organizations connected to the three sectors mentioned above.

For the three domains, the user gets access to the relevant words and phrases in written and spoken Danish and a translation. Mobidic has been developed for English, Polish and German speakers. Moreover Mobidic gives access to a “pronunciation workshop”, where it is possible to listen to each of the single sounds in the Danish language. Together with the pronunciation, the user gets a video showing a mouth viewed from the front pronouncing the sound, and an animation showing a whole face from the side pronouncing the sound. In this way it is possible to see how the mouth and the tongue should be placed during the pronunciation.

The tool can be downloaded for free from the Internet ([www.mobidic.dk](http://www.mobidic.dk)) and is available for older mobile phones and for smartphones. Besides the online version, Mobidic has also been published as small books, which the user can carry in his/her pocket. These books have been given out at job centres, which has also been a way to inform about Mobidic. Around 1000 such books in each language have been given away.

#### **THE MOBILE LANGUAGE LAB**

The Mobile Language Lab is part of Dansk.nu ([www.dansk.nu](http://www.dansk.nu)), an e-learning platform where Vifin delivers different online materials and manages learning spaces for Danish as L2 to 35 language schools and other institutions. It was developed from August 2006 to March 2007.

The Mobile Language Lab aims at learners with a short or long educational background at the intermediate level in Danish. It consists of 10 exemplary videos of 3 minutes, each showing a common situation from daily life. Each situation is focused on oral conversations which appear natural and authentic, which means that all the situations contain improvised language instead of planned conversations.

Along with the exemplary videos, the Mobile Language Lab gives access to different kinds of information and analysis tools on oral communication. Learners are expected to analyze and work with the videos as well as to produce their own videos to work with. Learners are encouraged to use their mobile phones to record authentic conversations from their own life and then upload them to the learning space. Training is provided to enable the learners to perform these tasks and to analyze the language. The Lab’s resources have been designed for and are normally used in the context of blended L2 learning courses, rather than for autonomous learning.

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<sup>72</sup> Development consultant currently working on the content for an e-learning program for adult immigrants on Danish as a foreign/second Language. Trainer on the use of mobile tools in education.

<sup>73</sup> <http://www.vifin.dk/default.htm>



The Mobile Language Lab can be reached through the Internet at [www.dansk.nu](http://www.dansk.nu) (but payment of a subscription fee is requested) and the videos can also be downloaded – for instance to a mobile phone.

The Mobile Language Lab has been presented in different publications in Denmark and at conferences, focusing on the potential of mobile phones to support/enable an ethnographic teaching method<sup>74</sup> in second language teaching.

#### **MOBILE ASSISTED TRAINING CLOSE TO PRACTICE**

During 2009 to 2012 Vifin has been further exploring the possibilities of using mobile phones in connection to second language learning and vocational training close to practice. This effort takes place through a close collaboration between learning institutions, companies and different kinds of networks in the region of South Denmark.

The mobile phone is used as a tool for registration/documentation of practices, for communication and as access to encyclopedia. As a registration/documentation tool, the focus is on recording sounds, videos or taking pictures from the practice of each individual student. This is then shared on a specially designed mobile learning platform, in social media or through shared Evernote notebooks. In that way it becomes possible to work with student-generated authentic learning materials of specific interest for the individual learner. Besides supporting this ethnographic teaching approach, the project also explores the possibilities of using mobile phone in connection to Cooperative Learning<sup>75</sup>.

During the years, teachers have been trained on these new pedagogical uses of mobile phones both technically and as tools for learning. Students too have been introduced to the different functionality in their phones and on how to share their products in the social media or the like. Around 40 teachers and 250 students have been involved in the project.

#### **THE MOBISTICKS PROJECTS**

In 2010 and 2011 Vifin has worked with the development and use of QR-codes, called Mobisticks. The aim was to make it easy for all users to create their own QR-codes and then to find exemplary ways to work with the content.

At [www.mobisticks.dk](http://www.mobisticks.dk) one gets access to the code generator. For free and without having to sign up, it is possible to turn an URL into a code, which can then be printed or saved on the computer. By creating a user profile, one gets the possibility to generate codes for sound files, images and videos, which will then be stored at the Mobistick website. Mobisticks have to be read with the application Scanlife.

The QR-codes have been used for information and learning purposes. Different institutions within Vejle municipality have used the codes to give information about their work, plans for the city, highlights of the city and the like. The codes have been placed in public spaces and have been used in connection to exhibitions. At the end of 2011, Vifin also undertook a special project aimed at using the codes to help immigrants at the work place. In this case the idea was to make a set of codes containing information about the Danish labor system, foreigners at the work place and language learning for foreign employees.

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<sup>74</sup> The ethnographic method within language learning is taken from the ethnographic field, and means that the students have to leave the classroom and go out in the society to study how people act and talk at specific places and situations. The process is prepared in class and the students have to come back and share their observations. Karen Risager, Dr. Phil, Roskilde University. Eleven som etnograf (the student as an ethnographer), Sprogforum Nr. 4, vol. 2, 1996, p. 49 – 54.

<sup>75</sup> Cooperative Learning, Kagan Spencer & Jette Stenlev, Alinea, 2007 – this book gives structures of collaboration for different kind of learning goals. The project has aimed to incorporate use of mobile phones in those structures.

As for the learning part, the codes were used in two 8 grade classes in a public school with many pupils with Danish as a second language, and in a language class at the language school in Aarhus. The students were at the Danish intermediate level, with a long education background. Both quick and slow learners participated.

### **Mobisticks used for information**

The content behind the QR-codes for the information activities has been created or found on the Internet by the developers of the codes. One example is Økolariet, a knowledge&activity centre in Vejle, which works on climate, nature, environment, energy, inventions and innovation. Økolariet gives information about different natural highlights in Vejle through information boards with short descriptions about the place. The information board has now been provided also with Mobisticks that contain videos produced by Økolariet telling more about the place and its history, showing older images of the place, linking to music related to the place and found on the Internet etc. Økolariet has also developed quizzes in relation to the places. The questions are formulated by the staff and the quiz itself created with GoogleDoc Formular.

QR-codes for information delivery have been found to be a great supplement to exhibitions and the like, but they cannot stay alone. The producers of the exhibitions found it important that the exhibition could be seen also without the QR-codes. The codes ought to function as a way to give extra information to those having special or additional interests. Use of QR-codes did also mean, that written information in an exhibition –or in connection to a city highlight – could be made simpler and thereby more accessible. This as a consequence of the codes mainly containing videos, sound recordings or images. The QR-codes were thus seen as a way to make the dissemination of information more lively and appealing to a broader audience, especially of younger people.

Another important lesson learned by the information providers was that the content behind the codes has to be of a good quality and well focused. The content must be relevant for the receiver, to make it worthwhile for him/her to scan the code and should try to give an “aha” experience.

As for the use of Mobisticks at the work place, the findings are that the general information given by the set of Mobisticks was not really of interest to the users. It did not represent information needed “here and now”. Besides, most of the information consisted of text and therefore better accessed from a tablet or a computer. Work places had greater interest in codes more directly connected to their context and needs, for instance instructions on how to use machines. QR-codes were found useful in relation to weak readers: in one case a manager read and recorded the written instructions and put this recording in a code placed close to where the instruction would be needed. The employees got access to the instructions very easily and were able to listen to them as many times as they needed; at the same time, the instructor was spared the need to pass the instructions over and over again.

### **Mobisticks used for learning**

In the learning context, content of the Mobisticks was created by both teachers and learners. The pupils in the 8<sup>th</sup> grade did for instance work on family traditions and video productions. In the first case, they had to write about their family history, scan the text and create a code to share with other pupils. In the other case, the teacher made codes which showed a specific photographic perspective, for instance a bird’s eye view, and thereby making it a lot easier for the pupils to understand, what she was talking about.

At the language school, students worked on their writing abilities. An assignment for them was to write reviews of easy readers they had read. The reviews were written on a blog – and a code made, which then gave access to the blog with the reviews. These codes were then

attached to the easy readers, so that students before borrowing a book could read a review of it from one or more other students. In that way, by scanning the code students got access to meaningful information, written at their own level. At the same time, the assignment made also sense for the student-reviewers, who wrote for somebody else and not just as an exercise. Other relevant usages were found to be for the teachers to create codes linking to updates of written materials or codes with images or videos explaining some kind of content in a new way, thereby giving room to more differentiated teaching.

The public school and the language school produced around 100 Mobisticks each, with examples of how to work with them. The public school created five categories of sticks (<http://tema.mobisticks.dk/noremark.html>):

- Filmforløb (working with movies): Sticks with information about different kind of perspectives in movies. Written explanations with an image. Images of actors and scenes from movies. Produced by the teachers.
- KZ-lejrene (concentration camp): Sticks with different kind of information. Produced by the teachers or found on the Internet.
- Historieforløb (History theme): Different kind of information found on the Internet relating to the theme.
- Pædagogikhæfte (pedagogical considerations): Links to the Internet giving relevant information to the teachers.
- Diverse/Sjov (Miscellaneous/fun): What it says – different things found on the Internet.

The language school created eight stick categories (<http://tema.mobisticks.dk/laerdansk.html>):

- Bytur (a city trip) where students had to walk through the city, scan codes and answer to questions about the place where they found the code. All codes made by the teachers.
- Arbejde (work), linking to a YouTube video telling how to write a job application, examples of CVs, names of different work-related words with sound recordings and images. Some codes found on the Internet. The sound recordings and images produced by the teachers.
- Sproget (Language) with YouTube videos explaining grammar. All found on the Internet.
- Køkken (Kitchen) with sound recordings of words related to cooking. All produced by the teachers.
- Puls (a teaching system for Danish as a second language). Up to date information related to the book content, different kinds of assignments and examples produced by the teachers.
- Info (Information). A video showing how a secretary redirects a call from the phone of the administration to the relevant person. Information about opening hours of the study centre at the language school. Both produced by the teachers.
- Anmeldelse (Reviews). Blog (created with blogspot) where students post reviews of easy readers that they have read. One blog per book.
- Samtalebilleder (Images to talk about). Images taken by the teachers and given a category (tradition, leisure time etc.)

With respect to learning use, the teachers found that creating codes with supplementary content to written materials gives the students and pupils a better understanding of that material. This is also a good way to differentiate the teaching regarding both learning style and level. The teacher at the public school also found that use of the mobile phones in the

teaching was motivating for the children and that they were more productive when they had to contribute to create content to the codes.

The adult L2-learners identified additional potential usages of the codes. They suggested to use them in order to explain words, to give instructions on how to use different kinds of machines and to help them in their cultural understanding. Students with a higher education and who were quick learners also requested to work with the production of codes that could be attached to their personal card and link to their CVs.

Working with QR-codes in connection to learning brought through different kinds of realizations. First of all, that QR-codes are not a method, but only a tool and that you have to be aware when to use them and why. In one case for instance, the codes were used in a computer class where all learners had tablets or laptops connected to the Internet. This meant that the online content could be easily reached just by a normal Google search. Similarly, one could question whether the use of QR-codes to share written stories about family traditions between pupils is the most relevant way to do so.

A second realization was that the best content for the codes were images, sound recordings and videos, and that written content should be short. It was also stressed the need to focus the codes' content on the specific target groups they would be used for.

As for technical aspects, teachers found that use of QR-codes demanded a well working Internet connection in order to easily and reliably access the content, and avoid hindering the work flow and decreasing users' motivation.

Users found it difficult to save the reached content on their phones and had to learn how to bookmark it. When they had learned it, it was much easier for the children to keep track of their learning materials on the mobile phones, than on paper. Both groups found it difficult to produce the codes themselves and the less skilled learners had to get thorough instructions on how to download the code-scanner to their mobile phone. The less skilled adult learners found the codes to be abstract. This may have changed today, given that QR-codes are much more widely used.

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## 8. ANNEX 2 – AIMS, AGENDA AND PARTICIPANTS OF THE BARCELONA WORKSHOP

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### Workshop title:

**Mobile services for immigrant people: learning, information, and community building for employment and integration**

Date and location: Barcelona April 26-27, 2012

[Internet Interdisciplinary Institute-IN3](#) (Universidad Oberta de Catalunya), [Media TIC Building](#), Roc Boronat 117. Room William Mitchell (7th floor)

Presentations (PDF) at the Barcelona workshop are available via <http://bit.ly/MJ1BUE>.

### 8.1 CONTENT AND AIMS OF THE WORKSHOP

As societies shift into a mobility paradigm, immigrants also do so. In fact, immigrants can often be seen to represent, anticipate and live at the frontier of mobility in the global economy. Portable technologies are the material condition for it. Immigrant people have enormously integrated mobile phones into their lives. Migration and mobility paradigms crosscut. Immigrants as all mobile communication users are more autonomous, more integrated within their groups, with more capacity for micro-coordination of their daily lives.

This workshop addresses the intersection of specific immigration social realities and the new challenges of mobility. Recent research works have identified the key role of mobile phones for immigrant people such as help in emergency situations, simultaneity in communication overseas, and co-presence in the education of children for absent parents. From a more user-centred approach, we aim to explore to what extent mobile technologies could be designed (through mobile individual artefacts) to give response to immigrants' needs. In particular, it is proposed to focus on the contributions of mobile telephony in three key areas of immigrant's necessities: learning, information, social networking and community building for employment and other integration purposes.

Experts on immigration and ICT, on mobile technologies, practitioners and representatives of the civil society are invited to participate. As part of the MASELTOV project (<http://www.maseltoveu/>), we aim to discuss relevant experiences, identify main challenges faced and key lessons learnt, draw inspiration and useful suggestions for MASELTOV own development. We also hope to establish collaborative relationships with other actors working in this field. Partners of MASELTOV will also take part in a very active way.

### 8.2 OUTLINE OF THE WORKSHOP

The workshop starts with an introductory session on the MASELTOV project and its main issues. An inaugural speech will address the broad application and business opportunities of mobile services. The workshop then develops into three thematic sessions. Keynote speakers will provide general reflections at the beginning of each session. These will be followed by Projects Presentations of domain-related initiatives, with the purpose of interchanging experiences. At the end of each presentation and each session, time will be available for discussion and interaction among participants and with the speakers. The final session is devoted to extracting new ideas for MASELTOV project and discussing them with the project's three NGO partners.



### 8.3 AGENDA

#### **DAY 1 – April 26**

**14:00-14:30 Registration and Welcoming coffee**

#### **Introductory Session (14:30 – 15:15)**

**Chairman: Stefano Kluzer**

*The MASELTOV project and its three key themes* –Lucas Paletta (MASELTOV Coordinator, JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz)

*Employment and immigrants integration in recent EU policies* – Clara Centeno (European Commission, JRC IPTS, Sevilla)

*Mobile phones and immigration: What do we know and what have we learnt from the case of Spain?* - Adela Ros, Cecilia Gordano (IN3-UOC, Barcelona)

#### **Inaugural speech (15:15 – 15:50)**

Bernard Benhamou (Délégation aux usages de l'Internet, Paris) «*Mobile applications, opportunities for new enterprises and social actors in the ProximaMobile experience*»

**Short break and participant's presentation**

#### **Thematic session 1: Mobile learning (16:15 – 19:00)**

**Key speaker:** Norbert Pachler, London Mobile Learning Group at the Institute of Education (IOE) of the University of London (*via Skype*)

Carol Savill-Smith, GSMA  
- **MoleNet** initiative

Maria Ranieri, University of Florence  
- **European Project “ENSEMBLE”** Mobile Learning to Promote Social Integration  
- **My Mobile project.**

Marcus Winter, University of Brighton  
- **Situated mobile language learning project (SIMOLA)**

*Open Discussion*

## **DAY 2 – April 27**

### **Thematic session 2: Mobile information assistance (9:00 – 10:45)**

**Key speaker:** Dana Diminescu, Scientific director project TIC-Migration at Fondation Maison des Sciences de l'Homme and Professor at SES/Telecom ParisTech

Cyril Esnos (Marcopolis) and Olivier Pariselle (Pop-Development) France, **NewExpat** project

Anne Charlotte Petersen, VIFIN, **Denmark Mobisticks** and other projects

*Open Discussion*

*Coffee break*

### **Thematic session 3: Mobile social networking & community building (11:00 – 13:00)**

**Key speaker:** Claudio Feijo, Universidad Politécnica de Madrid

Josep Blat, DTIC (Departament de Tecnologies de la Informació y les Comunicacions), Universitat Pompeu Fabra; Barcelona, **Life 2.0 project**

Oula Aikiki, **Busuu** an online community for learning languages

*Open Discussion*

*Lunch (13:00 – 14:00)*

### **Final session: New paradigms and ideas for MASELTOV (14:00 – 17:00)**

*MASELTOV's three NGO partners will: 1) present their main activities with/for the immigrant communities; 2) illustrate more in depth one or two services (problems and targets addressed, key delivery mechanisms etc.) likely to be involved in MASELTOV trials; 3) present the results of immigrants interviews on integration barriers collected as part of WP2. These presentations will be followed by an open discussion with workshop participants*

Sara Wickert, **Migrants Resource Centre** (London)

Petra Eyawo-Hauk, **DANAIDA** (Graz)

Samuel F. Ricardo and Fernando Barcia Sánchez, **Fundación Desarrollo Sostenido** (Madrid)

*Open discussion*

**Other participants:**

*MASELTOV partners*

Nicoletta Bersia (partner, Telecom Italia)  
Jan Bobeth (CURE)  
Susanne Schmehl (CURE)  
Andrew Bresher (Open University)  
Alina Cibeá (ICMPD)

*Invited experts*

Piia Varis (Babylon - Centre for Studies of the Multicultural Society, Dept. of Culture Studies, Tilburg University, NL)  
Ricard Faura (Information Society, Generalitat de Catalunya)  
Ramon Sanahuja (Ajuntament de Barcelona)  
Anaïs Le Corvec (University of Barcelona)  
Mireia Fernández-Ardévol (IN3)  
Luciana Caffesse (IN3)  
Nihil Olivera (IN3)  
Vera Ularu (University of Bucharest)  
Lidia Toda Adell (UOC)  
Walter CUELLAR CARVAJAL (UPF)