

Study on the Impact of Information and Communications Technology (ICT) and New Media on Language Learning

EACEA 2007/09

FINAL REPORT

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This is the Final Report of the study regarding the impact of information and communications technology (ICT) and new media on language learning which was commissioned by the Education and Culture Executive Agency (call for tenders EACEA 2007/09) and carried out by Ellinogermaniki Agogi through an international team of experts.

Edited and compiled by In conjunction with	Anne Stevens, The Open University UK Lesley Shield, e-learning consultant	
Reviewers of literature:	Lesley Shield, e-learning consultant (review in the area of CALL) Katerina Zourou, University of Luxembourg (review in other areas)	
Field studies:	Cyprus	Pavlos Koulouris, Ellinogermaniki Agogi
	Finland	Peppi Taalas, University of Jyväskylä Ilona Laakkonen, University of Jyväskylä
	France	Katerina Zourou, University of Luxembourg
	Germany	Daniela Stai, Ellinogermaniki Agogi Dagmar Schäffer, Ellinogermaniki Agogi
	Greece	Pavlos Koulouris, Ellinogermaniki Agogi
	Hungary	Daniela Stai, Ellinogermaniki Agogi
	Spain	Pilar Aramburuzabala, Universidad Autónoma de Madrid
	UK	Anne Stevens, The Open University UK Lesley Shield, e-learning consultant
	International interviews	Lesley Shield, e-learning consultant
Data analysis:	Pavlos Koulouris, Ellinogermaniki Agogi Jason Abbott, The Open University	
External advisor:	Patrik Svensson, Umeå University	
Project Manager:	Sofoklis Sotiriou, Ellinogermaniki Agogi	

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INTRODUCTION

Europe's Information Society emphasises linguistic diversity as a fact of life. Web TV, online music, movies on mobile phones are a reality for European businesses and citizens, underlining the importance of being able to access and use information in a number of languages.

The promotion of linguistic diversity and multilingualism in the emerging landscape of, and through, media and information and communications technology (ICT) is a guiding principle for several European policies (predominantly programmes run by the Directorate General for Education and Culture of the European Commission¹, but also as a component of other EC initiatives, such as the European Community's 7th Framework Programme for Research and Technological Development² and the eContent and eContentplus Programmes³). Languages, media and new technologies are themes that have been investigated in several different contexts at a European level. A number of projects connected with ICT-supported language learning have been funded, which through various approaches have aimed to demonstrate the added value that can be obtained from using ICT and new media, either alone or together with face-to-face interactions to create 'blended' language learning experiences. In parallel, European markets, increasingly in recent years, have been producing new products and services for language learning through the use of ICT and media.

From this increasing body of experience, an understanding is emerging of the need for certain conditions, if the expected benefits of the use of ICT and new media are to be achieved and interventions made more targeted and effective. These include appropriate pedagogical support and teacher training, digitally competent learners, well maintained infrastructure, appropriate digital content. There are discussions among experts and in the professional communities related to language learning on the arguments that language learning multimedia sources need to be made easier and more interesting to use, that multicultural and multilingual environments need to be developed to make use of Europe's rich heritage, and that older as well as emerging new media (e.g. interactive TV, mobile internet, podcasting, MP3 players, electronic games) and 'edutainment' in general need to play an important role in promoting language learning and multilingualism.

In the context of these discussions, the need has become evident for an assessment of the potential value of emerging technologies, and whether they are being, or could be exploited to greater effect, in language learning. Fresh thinking about the ways in which we may use new tools and technologies in language learning is necessary, on the basis of evidence from the field including the markets currently developing in intersections of ICT, media, and language learning. It is time to examine in both depth and wide scope how language learning is adapting and benefiting from the ever-faster changing world of communications and new technologies, with the exponential growth in the use of mobile and handheld devices and ICT for social and entertainment purposes over the last few years. As technologies converge and boundaries between broadcast and interactive media create new opportunities for direct

¹ http://ec.europa.eu/dgs/education_culture/index_en.htm

² <http://cordis.europa.eu/fp7/>

³ <http://cordis.europa.eu/econtent/>,

http://ec.europa.eu/information_society/activities/econtentplus/index_en.htm

mediation, interactivity and personalisation of home-based delivery, new possibilities for learning are emerging. The debate around the impact of ICT and new media on language learning is naturally influenced, if not determined, by the developments within the wider context of public media and the current debates and dilemmas confronting broadcasting and broadcasters.

Issues relating to learning, to take-up among traditional and new users and changes in delivery and use are all part of a much bigger picture. It can be argued that it is meaningless to consider impact upon learning and language learning in particular without situating these activities within the larger spectrum of change. Thus, an undertaking to assess the potential of ICT and new media and its impact on language learning should aim to capture the essence of changing society in its many dimensions and how such social change can inspire, influence and inform the decisions at strategic and policy levels. The often conflicting perspectives operating in modern society, such as new opportunities versus available time, resources versus costs of use, potential of new technologies versus practicalities of everyday applicability ought to be taken into account, in order to assess where best to intervene, influence or invest effort and resources. The wider social make-up represented by multi-ethnic populations, a work-force on the move, global economic movements and pressures, the importance of communicating with others and understanding more about other cultures as well as the global influence of the English language are aspects of today's world than also need to be taken into consideration.

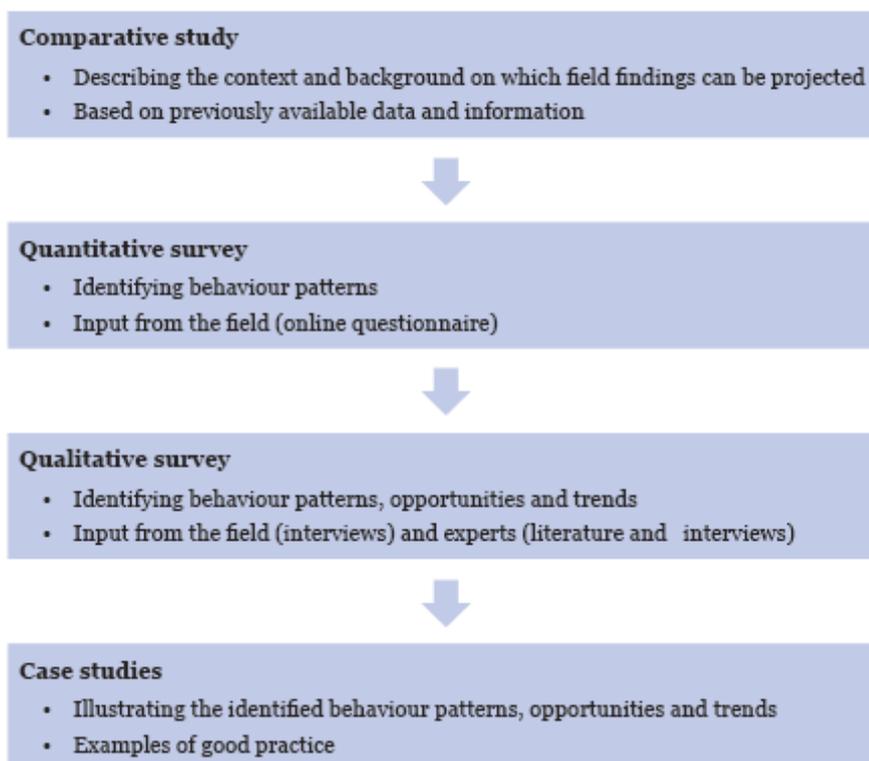
On this background, the present *Study on the Impact of ICT and New Media on Language Learning* was initiated by the European Commission through its Education and Culture Executive Agency. The aim was to investigate the possibilities of ICT and new media as complements to traditional language teaching and learning methods within and beyond the traditional framework of formal education systems, with the purpose to inform policy-making and future activity in the area of language learning. The study, which was carried out between June 2008 and May 2009, aimed to assess the current situation concerning the use of ICT and new media for language learning, and cast light over future developments in this area. It concentrated particularly on identifying trends and practices beyond schools and universities, in working life and in personal life, including the use of ICT and new media in formal, non-formal, and informal language learning. It focused on language learners' behaviours, motivation and attitudes, possibilities for increased language learning outreach, as well as opportunities and challenges, demand and supply factors in the relevant markets.

METHODOLOGY

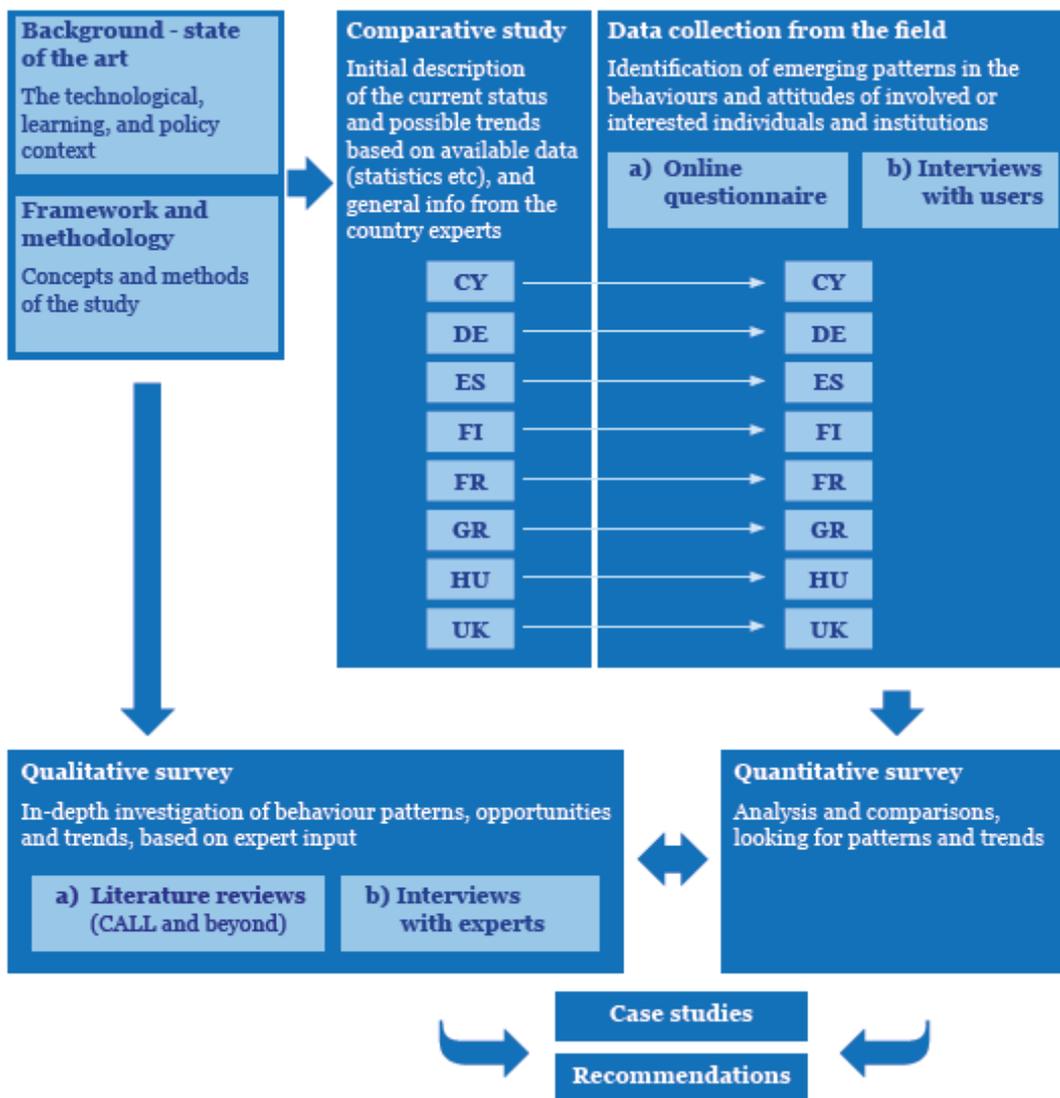
The study followed a four-stage plan of development, which is reflected in the four Annexes:

- A comparative study 'on the potential for the use of ICT and new media for language learning in eight European countries (Annexe I)
- A quantitative survey of the use of ICT and new media for language learning purposes (Annexe II)
- A qualitative survey on current trends in ICT-supported language learning and possible developments in Europe and beyond (Annexe III)
- A set of case studies that serve as examples of good practice of the positive impact ICT and new media on language learning (Annexe IV).

The four research steps



The starting point is desk research which provides the background and highlights areas of development and gaps in understanding. This comprised: two literature surveys and a comparative study based on existing data. Together they provide the context and define the parameters of the open survey, qualitative investigations and national reports. In depth reporting is focused on eight countries selected to represent a diversity of size, provision and societal differences in Europe.



At a European level, the study encompasses a diversity of research techniques in order to provide evidence from a variety of sources from eight countries within Europe which represent around 56% of the total population of the EU-27 and exemplify different cultures, size of territory and social contexts for language learning (see section on the study sample further below in this chapter, and more details in the Comparative study in Annexe I). The study sample countries are Cyprus, Finland, France, Germany, Greece, Hungary, Spain, and the United Kingdom.

Definition of terms and approach to the study

The study began by mapping the conceptual landscape for the investigation. An inclusive approach to language learning was adopted to cover formal, non-formal and informal language learning. The three terms were interpreted as follows, on the basis of existing EU definitions⁴:

- *Formal learning*: Learning typically provided by an education or training institution, structured (in terms of learning objectives, learning time or learning support) and leading to certification. Formal learning is intentional from the learner's perspective.
- *Non-formal learning*: Learning that is not provided by an education or training institution and typically does not lead to certification. It is, however, structured (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner's perspective, e.g. self study via a downloaded resource from a free to use online source.
- *Informal learning*: Learning resulting from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning may be intentional but in most cases it is non-intentional (or 'incidental'/ random).

The assessment of 'impact' relates to the interplay of availability and use of technologies and their applicability to and perception of their use for language learning purposes as informed via the three-part research investigation:

- quantitative data
- qualitative data
- evidence from research.

This three-dimensional approach to developing a body of evidence is critical as outcomes derive from:

- an overview of current use and perceived values of ICT and new media for language learning purposes
- an in-depth analysis of varying contexts and cultures to identify commonalities
- current research in the field identifying recognised developing trends and areas currently being investigated as potentially fertile for development.

The team agreed that 'Impact' does not equate with 'effectiveness'. Rather, 'effectiveness' is one possible interpretation of the term. 'Impact' is related to change in practices leading to an improved learning experience. Such impact may be found in evidence of:

⁴ European Commission (2000). A Memorandum on Lifelong Learning. Brussels, 30.10.2000. SEC(2000) 1832.

- *Changes* in the way languages are learnt and taught
- *Increases* in numbers of language learners
- A *paradigm shift* in the roles of learners and teachers.

These definitions guided the work of the study.

Desk research

The starting point for the study was desk research. This comprised a two-part desk research exercise and established existing data and evidence from within the area of CALL and from e-learning more generally. The first part comprised two major literature reviews while the second part was a comparative study of the context in the eight countries involved in the study.

Literature reviews

The reviews focused on two related fields:

- Computer Assisted Language Learning (CALL) over the past four decades
- Literature resources in e-learning beyond the field of CALL.

Through these literature reviews, the research team mapped the concepts and emerging issues and questions related to the field under investigation, as documented in the relevant international literature. Taken together, the two literature reviews contextualise current uses of ICT and other new media for language learning. Annexe III summarises this work.

The first literature review commences with a brief history of the use of ICT and new media for language learning. Two models of that history are presented and discussed in order to clarify and define terms commonly used in the field to ensure a shared understanding.

The review further describes two literature surveys - a pilot survey and a follow-up survey - of articles that were published in specialist computer assisted language learning (CALL) journals in the period 1983 - 2008. By analysing the outcomes of these surveys, the report attempts to identify current trends in the published use of ICT and other new media to support language learning.

It was believed that the regular publication of academic journals, in contrast to books or dissertations where the lead time to publication can be several years, would mean these would offer more up-to-date information than other types of CALL-specific resources. In order to take advantage of the fast publication route offered by the Web, journals that appear solely online (e.g. *Language Learning and Technology Journal*) were included.

Criteria were identified for the selection of journals for inclusion in the survey. Further criteria were drawn up to select similar items from the journals' contents: only peer-reviewed academic articles were to be included, thus excluding items such as software reviews, book reviews or discussions by the journals' readership. 'Special issues', where published articles

focus on a specific area of CALL were also excluded. While such special issues could be seen to demonstrate the importance of a specific aspect of CALL, they might also result from a proposal made by an individual and thus, the data might be skewed by an influx of items about a specific topic. The content of each included item was examined and tagged according to the categories of technology types used in CALL that are identified in the conceptual framework of the study.

From this study it was possible to gain an overview of the types of article published in each journal year on year and across all the journals considered in any particular year. Whilst the methodology applied allowed only a broad-brush overview to be obtained - refinements to the methodology suggested in the concluding sections of the report provide indications of some possible trends in the use of ICT and other new media to support language learning. As well as considering the types of technologies / approaches addressed in the included articles, the surveys considered them in terms of the categories 'formal', 'informal' and 'non-formal' learning.

The second literature review serves to expand literature review beyond CALL, by drawing similarities with publications, findings and outcomes identified in closely-related areas. These areas are basically 1) Computer Supported Language Learning (CSCL), 2) e-learning and open & distance learning, 3) Computer Mediated Communication (CMC) and 4) mobile and interactive learning. These areas together with CALL form a group of closely linked fields of research, practice and development and are mutually enriched and developed. This literature review also synthesizes findings and draws conclusions by bridging CALL research with research carried out in the above mentioned fields.

The second review took as its focus the following areas:

- International organizations' studies and reports: The aim was to seek similar studies or research that has been carried out on the same field by other international organisations, and draw on methodology, findings and recommendations from other studies.
- Networks, pan-European e-learning portals: The aim was to look for similar studies or research that has been carried out on the same field by other international organisations.
- Journals (other than CALL publications) (2005-2009): The aim was to search beyond the area of CALL and through similar fields.
- Scientific, stakeholders' and practitioners' conferences (2005-2009): Three different types of conferences were selected (highly scientific conferences, stakeholders' and practitioners' annual meetings) to investigate common characteristics in conferences' scope and thematic, and investigate convergence (or divergence) of big professional events addressing different type of target groups who are all active in the field of computer supported (language) learning.

This part of the study was prompted by the growing attention on (learning) practices corresponding to the strengthening of the learner-centred paradigm, where emphasis is not on predefined pathways set by educators, but trajectories, both on the individual and the collective strand, co-constructed by learners and supported by various resources (human and material) throughout the learning process. Learners creatively configure, adapt and handle resources and the multiple trajectories that constitute learning processes are highlighted through the attention drawn on practices. An estimated 80% of adult learning takes place

outside formal education. For language learning, it is likely that out-of-class experiences play an equally important role (Benson & Reinders, in press⁵). However, informal learning has received far less attention while 'institutionalized' learning, classroom methods and materials have been intensively explored over the years. ICT-supported informal learning practices are more difficult to identify. They occur in settings where it is much more difficult to observe practices and learners are not always aware at what extent they are learning and that learning occurs informally. Additionally, there is a wide range of settings and types of learning in informal and non-formal settings that the state of knowledge has not fully explored yet.

Comparative study

The second part of the desk research was a comparative study. This is presented in Annexe I. As an initial step in the research sequence, the comparative study aims to develop the framework within which information collected from the field in subsequent steps is located. Based on available data and information, it outlines the wider context of the eight sample countries in which the use of ICT and new media for language learning should be examined. The information used for this comparative study comes mainly from published statistics and datasets of the European Union on aspects of Europeans' lives which are relevant within the field investigated. These aspects, and the corresponding assumptions which yield them as interesting in the present context, are outlined in Table 1 below.

Provided the corresponding data range is available, the development of the examined statistical indicators is observed in a time frame of 2000 to 2008 (year of commencement of the present research), or to the most recent year before 2008 for which data is available.

For the purposes of general comparison between countries, the average for each country in the years featured is calculated in some cases. If fluctuation in the statistics of a country with respect to a particular indicator is observed, this characteristic is highlighted. In cases, however, in which the current state is more significant than the historical development of a measurement, the data for the last available year is focused upon.

In addition to the information for each of the eight sample countries, the EU average for each indicator is also provided as a means of reference. In addition, any information available through the European channels on other major countries in the world, notably the USA and Japan, is also provided as an indication of any strengths or weaknesses in the 'competition' between the EU and its major counterparts in the world.

⁵ Benson, P., Reinders, H. in press. *Beyond the language classroom*.

Table 1: Aspects investigated in the comparative study

ASPECT INVESTIGATED	UNDERLYING ASSUMPTION
Country size, economy and position of education in society	The demand and supply of language learning products and services based on use of ICT and new media may depend on general level of development of the economy of each country and the position of ICT within it.
Proliferation of life-long learning	Population's interest in lifelong language learning may be related to the existence or not of a wider culture for lifelong learning in each country.
Facts & attitudes related to language learning	The extent to which ICT and new media are used for language learning in a country may depend on broader context of language learning and its position in society. Contextual information on the use of, and attitudes to, language learning technologies are also relevant.
National characteristics/exposure to languages related to learning motivation	Certain socioeconomic and cultural characteristics, such as multilingualism In broadcast media, tourism, immigration, or unemployment, may constitute factors which encourage language learning in certain contexts.
ICT penetration in households and workplaces	The extent to which the use of ICT and new media for language learning in personal and professional life relate to the extent that new technologies and digital literacy have penetrated society.
Structural characteristics reflecting innovation	An economy and society characterised by a tendency to produce innovation and Research and Technology Development (RTD) may be more likely to demand and supply language learning products based on the use of ICT and new media.
Note: Information on the above aspects used for the comparative study originated in EU public information sources such as the Eurostat statistics database (http://ec.europa.eu/eurostat), the Eurobarometer public opinion analyses (http://ec.europa.eu/public_opinion), the Eurydice information network on education (http://eacea.ec.europa.eu/Eurydice), as well as other relevant EC studies.	

Quantitative survey

The quantitative survey, presented in Annexe II, was designed to address issues raised in the desk research. Building on the comparative study and initial literature review (integrated in Annexe III), the quantitative survey aimed to follow up on key areas among a wider cohort of users via an open survey. An online questionnaire was launched in seven languages (English, Finnish, French, German, Greek, Hungarian, and Spanish). It can be viewed at: <http://www.ea.gr/ep/survey/>. A copy of the online questionnaire in English is presented in Appendix II.

The questionnaire was designed to collect information about the behaviour and attitude patterns of individuals and the use of ICT and new media for language learning. The

approximately 230 questions and sub-questions were thematically organised into six sections (see Table 2).

Table 2: Sections in the quantitative survey questionnaire

Section	Content
1	General demographic questions (gender, age, languages spoken, country and place of residence, education level, and occupation)
2	Patterns of use of ICT and new media in everyday life.
3	Attitudes to multilingualism and language learning in general
4	Attitudes towards the use of ICT and new media for language learning
5	Behaviours towards the use of ICT and new media for language learning
6	Opportunity for respondents to provide contact details if they were interested in potential further involvement in the study.

The first section included general demographic questions (gender, age, languages spoken, country and place of residence, education level, and occupation). The second section concentrated on investigating patterns of use of ICT and new media in everyday life. The third section of the questionnaire explores attitudes to multilingualism and language learning in general, and the following two sections specifically investigate behaviours and attitudes to the use of ICT and new media for language learning.

The final section of the questionnaire offered the opportunity to the respondent to provide contact details if they were interested in potential further involvement in the study. The whole questionnaire was preceded by a screen containing a short text explaining the purpose and ethical code of the online survey and inviting users to participate.

Input was sought from informed individuals and institutions already involved in or have an interest in the use of ICT and new media for language learning. The online questionnaire was answered by more than 2000 respondents originating in the eight sample countries and many other countries in Europe and beyond.

The quantitative data was analysed in consecutive cycles of analysis. At the final stage, an external, experienced data analyst with no previous involvement in the study was also involved. Results of the Quantitative Survey are reported in Annexe II.

Qualitative study

The picture of behaviours and attitudes emerging from the quantitative study is complemented through the qualitative evidence-collection which is detailed in Annexe III. This qualitative study examined behaviours, attitudes, opportunities and trends in greater depth, based on user input and expert opinions accessed through interviews, as well as the literature reviews discussed above (p. 13).

Semi-structured interviews were conducted with learners, teachers and 'players' in the relevant markets in the eight sample countries, as well as with world-renowned experts in the field from many parts of Europe and beyond. The aim of the interviews was to cast light on identified issues and questions, by directly interrogating stakeholders and those at the vanguard of change in the field.

Interview frameworks were designed for the various target groups. These are included within Appendix III. Interviewees were selected in the eight sample countries, as well as more widely in Europe and other parts of the world, to include people with acknowledged experience relating to the use of ICT and new media for language learning, practitioners involved in innovative practice and with language learners.

In addition to semi-structured interviews, an analysis of the responses to open-ended questions and comments included in the online questionnaire was carried out and this offered additional insights into opinions of learners, practitioners and experts.

Access to informants varied by country, depending on local circumstances including population and market size. Each set of country-based interviews included a balanced coverage of target groups and institutional contexts, including:

- Language learners, language teachers, and language schools
- Producers, distributors and providers of language learning content and services, including publishers, software developers and broadcast media
- Companies investing in language training
- Experts in the field
- Individuals motivated to learn, such as:
 - those in employment and vocational trainees outside school education seeking to acquire appropriate language skills for work
 - those at risk of exclusion from language training, such as new immigrants, school drop-outs, or those who may have abandoned earlier language studies
 - those learning languages out of personal interest or motivation.

Overall, the qualitative survey provided a deeper interpretation of the issues that emerged from the previous stages of the study, as well as providing a framework for the formulation of recommendations to stakeholders and the selection of exemplifying cases of interesting practice.

The number of interviews, their distribution across the target group and the structure schedules for the semi-structured interviews are included in Appendix III. The analysis of the qualitative data was carried out by the country experts, who synthesised the findings and key messages. Annexe III comprises a synthesis of the results of the qualitative data collected via the field work. Results are organised in accordance with the key themes of the study.

Key themes of qualitative study

Within this remit, the research team formulated the following specific research areas for investigation:

- availability and use of ICT

- discernible changes in relation to ICT
- identifiable trends / directions of change.

Specific research areas covered include (full details are in Annexe III):

- use in relation to ICT more widely:
 - frequency of use compared to general personal use of ICT and new media
 - any changes reflecting the more generic use of the technologies
 - any further, wider, potential for educational and learning exploitation
 - identifiable barriers to expanding exploitation.
- effects on language learning:
 - Can new language learning behaviours related to the use of ICT and new media be identified?
 - Does the use of such technologies positively affect language awareness, attitudes to multilingualism and language learning in general?
 - Does the use of ICT and new media appear to enhance user motivation to learn languages?
- ability to improve outreach:
 - Do ICT and new media seem to help to reach new target groups for language learning, including those that are typically at risk of exclusion?
 - What does the advent of ICT and new media mean for the language teacher?
- economic / market implications:
 - Do ICT and new media have any impact on economic activity connected with language learning?
 - Is it possible to identify salient factors driving demand and supply?
 - Do any changes drive a new demand for languages training?
 - Has the market responded?

Stakeholders from related fields

The investigation into patterns of use in areas of ICT and public media reveals a multi-dimensional approach by users. This work informed the qualitative study in domains *beyond* language learning per se but potentially strongly allied via user networking. It explores via

the semi-structured interviews the learning potential of harnessing new areas of ICT and media that feature in lifestyle choices. It explores the potential to join up a wider range of contributors/ collaborators in order to influence, inform and strengthen delivery of learning content.

Interviewees included a number of allied but not essentially language–focused stakeholders such as broadcasters, publishers and developers who are active in language learning delivery. Their perception of the value of language learning, predicted changes and future trends contribute to the overall picture.

The potential to embed language learning more deeply within everyday technologies and media more widely are investigated and inform the potential for joint actions inform the recommendations relating to this part of the study.

Case studies

A set of case studies was identified that demonstrates interesting practice and exemplifies a variety of forms and structures that are being/can be exploited positively to impact language learning. They are detailed in Annexe IV. The identification and description of the case studies was derived from information collected by the study team members investigating the field in the eight sample countries during the previous stages of the study.

The aim of the case studies is to illustrate patterns, opportunities and trends identified during the field study. The case studies are selected as examples of where study team members saw potential for expansion and scaling-up of innovative practice and where specific examples of work provide potentially useful frameworks for others. These case studies do not constitute a definitive list of ‘best practice’, rather, they illustrate interesting and/or good practice.

The criteria for the selection of case studies included the following:

- Context of use
- Innovative character (effective use of new media, blended approaches in pedagogy and technology)
- European added value, language coverage
- Scalability and transferability
- User-friendliness, motivation
- Systematically documented impact on learners, outreach, and/or the market
- Cost/benefit ratio, affordability and sustainability.

The selected case studies are organised into the following thematic areas:

- National initiatives for change

- Free, social learning resources to reach new audiences and users
- Creating transition from informal to formal learning
- Flexible resources for teachers
- Innovations in integrating media into educational practices
- Supporting rural, remote and disadvantaged learners
- Media initiative in mobile learning
- Initiatives from cultural institutes
- Developments in company training.

The study sample

The study encompasses a diversity of research techniques in order to provide evidence from a variety of sources from eight selected countries within Europe.

The sample countries

The eight sample countries represent around 56% of the total population of the EU-27 and exemplify different economic, social and cultural contexts (see the Comparative study in Annexe I for full details). They are:

- Cyprus
- Finland
- France
- Germany
- Greece
- Hungary
- Spain
- UK.

The Comparative study (Annexe I) provides for a basic comparison between the eight sample countries on the basis of statistical indicators and other similar information. This broad-brush picture is complemented by information collected directly from the field via country-based field work studies, the results of which are brought together in the Qualitative study (Annexe III). Various characteristics of the eight countries are summarised in Table 3 below.

It should be stressed that there is inevitably a level of abstraction in the various values assigned to each country in this table. Closer consulting of the figures and descriptions in the Comparative study (Annex I) and Qualitative survey (Annexe III) is necessary for a more precise picture for each country.

Table 3: Aspects of countries represented by the study

	CYPRUS	FINLAND	FRANCE	GERMANY	GREECE	HUNGARY	SPAIN	UK
Country size	Very small	Small	Very large	Very large	Small	Small	Large	Very large
Economy	Small but dynamic	Large and dynamic	Large	Large	Small but dynamic	Very small but dynamic	Large and dynamic	Very large and dynamic
Public investment in education	High	High	High	Medium	Low	High	Low	Medium
Private investment in education	Very high	Very low	Medium	Medium	Very high	Medium	Very low	High
Educational attainment	Medium	Very high	High	High	Medium	High	Very low	High
Adult education and training activity	Medium	Very high	Medium	Medium	Very low	Very low	Medium	Very high
Multilingualism	High	Very high	Medium	High	Medium	Low	Low	Very low
Language learning activity	High	High	Medium	Medium	Medium	Low	Low	Very low
Perceived effectiveness of language learning at school	Low	Medium	Medium	High	Very low	High	Low	Very high
Exposure to languages through foreign media	High	High	Low	Low	High	Medium	Very low	Low
Exposure to languages through tourism and foreign residents	Very high	Medium	High	High	High	Low	High	High
ICT penetration	Low	Very high	High	High	Very low	Low	Medium	High
Research and Technology Development activity	Low	High	Medium	High	Low	Medium	Low	High

Clearly, the eight countries investigated offer contrasting contexts. They differ considerably in terms of size. As far as population is concerned, they include the three largest EU countries (Germany, France and the UK), three of the smaller EU countries (Greece, Hungary, Finland), as well as one of the very small members (Cyprus).

Table 4: Population of the eight countries in 2008⁶

COUNTRY	INHABITANTS	% OF TOTAL EU-27 POPULATION
Cyprus	789,258	0.2
Finland	5,300,484	1.1
France	63,753,140	12.8
Germany	82,217,837	16.5
Greece	11,213,785	2.3
Hungary	10,045,401	2.0
Spain	45,283,259	9.1
UK	61,185,981	12.3
Total of 8 countries	279,789,145	56.2
EU-27	497,455,033	100.0

The size and dynamics of the economy of each of the eight sample countries is of interest as they may reflect the inherent potential in certain contexts for increased demand and supply of products and services, including the various language learning solutions.

The Eurostat indicator of GDP (Table 5) per capita provides a reliable measurement of the differences between the eight sample countries in terms of economic activity and economy strength. As the figures published by Eurostat for 2008 at the time of writing this report were forecasts influenced by the developing world economic crisis, the data for 2007 are being used below to show the relative size of economic activity between the eight compared countries.

Table 5: GDP per capita in Purchasing Power Standards (PPS) (EU-27 = 100)

COUNTRY	2007
Cyprus	90.8
Finland	115.8
France	109.1
Germany	114.7
Greece	94.8
Hungary	62.6
Spain	105.4
UK	118.9
EU-27	100
US	152.7
Japan	112.1

⁶ Unless otherwise stated, Eurostat is the source for the information included in the tables in this section.

The sample of the eight countries includes both stronger and weaker European economies. Hungary, Cyprus and Greece are smaller economies, with a per capita GDP in PPS lower than the EU-27 average. Hungary, in particular, has a low purchasing power per capita at about only 60% of the EU-27 average. At the other end of the spectrum, the UK, Finland, Germany and France are countries with a high purchasing power per capita, while Spain is also above the EU-27 average.

The character of these economies is further illustrated by another Eurostat indicator, 'Real GDP growth rate', presented below (Table 6).

Table 6: Real GDP growth rate: Growth rate of GDP volume - percentage change on previous year

COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008
Cyprus	5	4	2.1	1.9	4.2	3.9	4.1	4.4	3.7
Finland	5.1	2.7	1.6	1.8	3.7	2.8	4.9	4.2	0.9
France	3.9	1.8	1	1.1	2.5	1.9	2.2	2.2	
Germany	3.2	1.2	0	-0.2	1.2	0.8	3	2.5	1.3
Greece	4.5	4.2	3.4	5.6	4.9	2.9	4.5	4	2.9
Hungary	5.2	4.1	4.1	4.2	4.8	4	4.1	1.1	0.5
Spain	5	3.6	2.7	3.1	3.3	3.6	3.9	3.7	1.2
UK	3.9	2.5	2.1	2.8	2.8	2.1	2.8	3	0.7
EU-27	3.9	2	1.2	1.3	2.5	2	3.1	2.9	0.9
USA	3.7	0.8	1.6	2.5	3.6	2.9	2.8	2	1.1
Japan	2.9	0.2	0.3	1.4	2.7	1.9	2	2.4	-0.6

The sample of the online survey

The online survey (Annexe II) was launched in autumn 2008 and closed in March 2009. Input was sought from informed individuals and institutions who are already involved or have an interest in the use of ICT and new media for language learning. To this end, the survey was publicised via professional and other networks and mailing lists via the eight countries of the study. Respondents were drawn from a wider group, but it is the responses from the eight selected countries that are the focus of the analysis.

In total 2195 responses were received. The 8 sample countries account for 60% of these responses (N=1313). The remaining about 40% of total responses comes mainly from various EU countries (notably from Italy, Portugal, Belgium, and Romania), as well as from some other European countries and other parts of the world.

Results were analysed across the eight countries and across variables with outstanding comparisons or contrastive results identified and highlighted. In addition to work within the study team, an external data analyst was employed to contribute to the overall analysis.

As an online and open survey, participants are not representative. In considering results from the survey, the following caveats have been identified:

- Sampling frame and response rates were different in each country. Country responses may not easily be generalisable to the population.

- Respondents will in part be self-selecting (e.g. online survey will not be completed by those not on-line).
- 'Missing data' / 'unknown' varies between different countries for different questions.
- Statistical significance is difficult to establish given some of the above and small numbers for some groupings.

Further, the following key features of respondents should be taken into account:

More women (approximately 60%) than men (approximately 40%) responded.

81% (of valid responses) had Higher Education or Postgraduate qualifications but approximately 1/3 of the total number of respondents did not answer this question.

There was a wide spread of ages (about 5% of responses to this question were empty):

Age	<20	20s	30s	40s	50s	>60
%	5	20	20	20	20	10

Respondents mainly lived in cities (around 60%) with others spread across 'town', 'small town' or 'rural locations'.

The sample was highly multilingual. The most common first languages were English, Greek, Spanish, German, Finnish, and French. About 83% of all respondents spoke at least two languages in addition to their first language. The most common other (i.e. 'foreign') language stated was English (about 50% of respondents stated this as their first other language), followed by French (14% as first other language) and German (7% as first other language). Respondents tended to speak their first other language as 'proficient users' (levels C1, C2), and their second other language as 'independent users' (levels B1, B2).

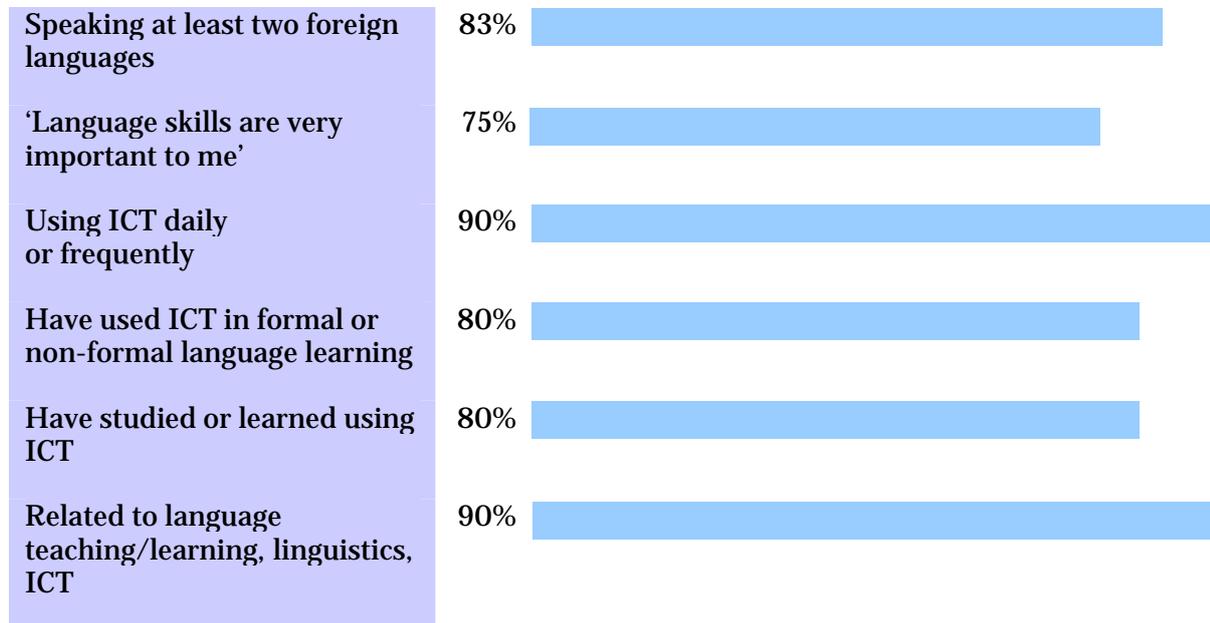
Respondents consider speaking and learning languages as very important to them. About three out of four state that language skills are very important to them in work and career, in personal life and personal development, but also as a social or cultural value.

Most respondents are regular users of ICT and new media. More than 90% of them use ICT and technologies daily or frequently, both for work and in personal life.

About 80% of respondents have at least occasionally used computers and new technologies in formal or non-formal language learning situations, and more than 30% of all respondents have done so regularly. About eight out of ten respondents state that they have studied or learned using computers or other new technologies for their learning or assessment.

About 90% of respondents are either directly or indirectly related to language teaching, language learning, linguistics, education or ICT.

In summary, the sample consists of people strongly interested in language learning and/or in the use of ICT and new media (% of total sample):



Given the self-selection characterising the sample, the online survey cannot provide results reflecting behaviours and stances in the general population, nor can it support comparisons between countries. However, it provides useful insights into some patterns of behaviour and attitudes in the part of the population which features a strong interest and involvement in the use of ICT and new media for language learning. Tendencies observed in this rather large sample may reflect beliefs and practices characterising those who nowadays form the main user base or potential audience of ICT and new media in the context of language learning. This information, combined with the trends emerging from the extensive qualitative research and literature review, helps towards a better understanding of the present situation and can provide some hints about what may follow in the near future.

In the following section key tendencies observed in the data from the online questionnaire are discussed.

USERS' BEHAVIOUR PATTERNS AND ATTITUDES

The online survey (Annexe II) is a useful source of information about the patterns of behaviour and attitudes in relation to the use of ICT and new media for language learning that were observed on the field. Although the sample is self-selected and the results cannot be generalized to the general population, as explained above (pp. 25-26), the responses provided by a sizable sample of people with an existing or potential interest in this area provide a valid picture of the tendencies currently emerging, casting light on the background of the qualitative findings that are discussed in the parts of the report that will follow after this section.

The most salient tendencies relating to the use of ICT and new in everyday life and in language learning in particular, as well as users' attitudes to language learning and the use of technologies for this purpose, are presented below in summary. A full presentation and discussion can be found in Annexe II.

Everyday use of ICT

Respondents were mainly experienced ICT users, which is not surprising. It is interesting to note that among them, ICT in connection with work or career tended to be even more frequent than use related to personal life.

Respondents were also asked how they used ICT and for what purpose. By far, most commonly they reported that they use ICT to socialise, keep in touch with others, and do work. More than eight in ten respondents stated that they do these activities either daily or frequently.

The next most common reported activities were related to getting informed: more than 70% of respondents use ICT to keep themselves updated on current affairs, check quick facts and find new information for things they do or plan to do.

Using ICT for entertainment is also very common, with almost 69% of respondents doing so daily or frequently. It is also very clear that the younger the respondents, the more likely it is for them to use technologies for entertainment. Interestingly also, the frequency of this use of ICT seems to increase among those over 70.

Online shopping, on the other hand, is not a frequent activity among most respondents, with only about 23% of them doing this daily or frequently. The middle ages tend to do online shopping more frequently than the younger and older generations.

Using ICT for learning

Although the vast majority of respondents have at some point studied or learned using computers or other technologies, using ICT for learning or study is not one of their most common activities in everyday life. They tend to use technologies far more frequently for socializing, communicating, working, informing themselves on various matters, or for entertainment. The frequency of learning or study with the use of ICT compares with that of using online facilities for banking, tax, or contacting officials. Learning or studying with the use of ICT is far more frequent than online shopping.

However, it is interesting to note that the younger the respondent, the more likely it is for them to use ICT and new media for studies or learning.

Using ICT for language learning

Even in this self-selected sample of respondents, the use of ICT for formal language learning and assessment is not that widespread. Computers/other technologies were the main medium in language courses for less than 10% of the respondents, and a regular course component for about 30%. Similarly, less than one in five respondents had earned formal certification of their language skills using technologies in the exams or in the preparation for them.

On the other hand, informal language learning through exposure to the target language via ICT and the new media is much more common. Nearly all respondents had communicated in a foreign language online, and two out of three in online environments where participants in the communication used more than one language.

Asked about the technologies and applications that have helped them to improve their language skills, even if language learning was not their main intention, respondents revealed interesting patterns of ICT use. A wide range of technologies was reported, some more popular and useful than others.

Among the devices mentioned in the survey, nine in ten respondents recognise the usefulness of computer and TV for improving language skills. About 70%, too, consider radio as a useful tool for language skills improvement. On the other hand, even in this sample of generally active and motivated users of ICT and new media for language learning, only less than one in four respondents state that the use of mobile phones or other handheld devices has helped them to improve their language skills.

Among the applications specifically related to language or language learning, online dictionaries and grammars are by far considered as the most helpful for language learning. Two in three respondents have found ICT language courses and materials useful. Other language-related applications, such as text corpora, concordancers, automatic translators, speech recognition and reproduction are seen as helpful by less than half of the respondents.

The use of entertainment media such as films on DVD and music on digital media (e.g. CDs, mp3) is recognised by most respondents as useful for language learning, even more than ICT language courses and materials.

High expectations from the use of new media for language learning are not always reflected in respondents' experiences. Only videos on the web, web TV, web radio are mentioned by more than two in three respondents. Blogs (vlogs, audioblogs, moblogs) have helped about 40% of respondents, while podcasts, social networking, interactive/digital TV, and digital games are mentioned by only one in three respondents or less. Only one in five mentions virtual worlds as an ICT application that has helped them improve their language skills. However, there are clear generational differences, as the younger the respondent, the more likely it is for them to mention new media (e.g. social networking and virtual worlds) as helpful for improving language skills.

Among the more 'conventional' communication applications, interestingly email (76%) is recognised as much more helpful for the improvement of the respondents' language skills than discussion forums (49%), chats (42%), voice over the internet (33%), SMS (27%), and videoconferencing (23%).

Motivation for language learning

The responses to the online questionnaire suggest that motivation for language learning is not exclusively located around a passion for languages and learning. Importantly, practical needs in a person's life, employment and mobility, and the desire or need to get to know and understand other cultures tend to be strong motivators, too. On the other hand, rewards for language learning achievements appear among the lowest motivations for adults learning a new language.

When learning a language, most respondents seem to be much more interested in 'communicating confidently in all situations' than merely communicating basically or using a few words or phrases. Some make a distinction here between their 'main' foreign languages and other less important language skills.

About 70% of respondents 'strongly agreed' or 'agreed' that using technologies can motivate them more to learn a language, and overall this statement was one of the most accepted in the relevant section of the online questionnaire.

The online survey further showed that the prime motivating forces that can push individuals towards new language learning tend to be connected with approaches fitting their needs or personality, accessibility, convenience, flexibility, appropriate course content, organization of the learning experience, as well as economy of effort, time and money. On the other hand, novelty alone ('a new way of learning, different from what you have experienced so far') is the least important factor that respondents would look for if they had to choose a way to learn a language.

Attitudes towards the use of ICT and new media for language learning

Respondents to the online questionnaire generally agreed that the use of ICT and new media can be very helpful in language learning.

Interestingly, responses emphasized aspects of 'direct' impact on language learning ('ICT could help me to speak, read, write, understand others better') more than the 'softer' support

of enhanced confidence, organisation of studies, planning of time, flexibility of place and learning matching personal needs/personality. Among the latter, flexibility in terms of the place of learning is underlined more than the other advantages.

Overall, among the possible advantages offered as options, respondents most readily recognized that the use of technologies offers flexibility and autonomy, as well as opportunities for self-improvement in studies/work (more than 80% 'strongly agreed' or 'agreed'). There was a similar response, too, about the statement that 'people learn languages differently when they use new technologies'.

Further, about seven out of ten respondents 'strongly agreed' or 'agreed' that the use of technologies can be a motivating factor for language learning, and gives learners access to more authentic (real-life) language use. Similar levels of respondents' agreement were also observed on the positive effects the use of ICT for language learning can have on social integration, learning accessibility and non-threatening learning.

On the other hand, there was far less agreement on statements about collaborative learning and learning encouragement. Only about half of the respondents 'strongly agreed' or 'agreed' that:

- 'Language learning is more collaborative when using technologies'
- 'Technologies can encourage me to continue studying, even when I feel like giving up'.

Barriers to the use of ICT and new media for language learning

Beside the many positive messages from the online survey about the use of ICT and new media for language learning, there are also some clear messages emerging from the responses about potential barriers to such use. It is interesting to note that even in this sample of experienced users, there was a minority (17%) who 'strongly agreed' or 'agreed' that they were sceptical about the use of technologies in language learning.

Responses to the online questionnaire clearly indicate that cost is a factor that affects respondents' disposition to the use of ICT for language learning. Two out of three would look for 'value for money' when choosing a way to learn a language, and only about one in three would pay an additional cost to use technologies in language learning. The vast majority are not prepared to pay for online-only language learning, while respondents are much more positively disposed to paying for their participation in face-to-face and blended (online and face-to-face) language learning.

According to the online response, age is also 'feared' as a barrier to the uptake of technologies in the field of language learning. Almost all respondents (99%) 'strongly agreed' that the use of technologies can be a threat for the exclusion of older generations. Nevertheless, it should not be underestimated that elsewhere the survey has consistently shown an already high involvement of older people in the use of ICT in their everyday life, for various purposes including learning and language learning in particular.

Another limitation that has emerged from the online survey, and particularly from the free-text responses to open-ended questions, seems to be the belief that language learning is

intrinsically related to face-to-face communication and immersion in the target culture, in 'real' (physical) rather than 'virtual' settings. This view, which was very common among the online respondents, led some to an overall negative stance towards technologies in language learning, while others recognized a potential in ICT and new media, but as a solution of necessity rather than choice.

Despite these barriers and the considerable variation in respondents' opinions and attitudes to other aspects of the survey, almost everyone (95%) 'strongly agreed' or 'agreed' that there will be an increase in the use of ICT and new media for language learning in the future.

OPPORTUNITIES, CHALLENGES, TRENDS: EUROPEAN LEVEL COMPARISONS ACROSS COUNTRIES

On the background of tendencies in users' behaviour and attitudes presented in the previous section, this part of the report provides a full discussion of the opportunities, challenges, and emerging trends that were identified throughout the study. Input to this section is mainly provided by the Qualitative survey (Annexe III), with information from other parts of the study interweaved in the discussion where appropriate.

Availability and access to ICT

Issues of availability of and access to the Internet and other media underpin all other considerations. Accessibility as well the cost of using the Internet is often a barrier either at a regional or national level where coverage is not consistent or locally where costs may vary. Overlaying this is the varying cost of access. Where infrastructures are better developed, costs may be prohibitive – especially among some of the more vulnerable groups of the population who are the target audience for new initiatives.

Evidence from the study reports an upsurge in the use of mobile devices which increasingly include Internet-enabled technologies. Simultaneously, access to broadcast media remains high via both terrestrial and digital channels.

Whatever the dominant delivery mode, the robustness of the infrastructure is a key factor in any suggested growth in learning accessibility. The relevance and potential of both mobile technologies and broadcast media in the use of expanding language learning provision is discussed in more detail elsewhere.

Mobile telephones (mobiles) provide a useful and, thus far, under-exploited format in educational terms, and unsurprisingly are the subject of much debate, research and surmising as to their potential. Mobiles with increasingly sophisticated integrated technologies are a part of modern life. They provide instant access, good usability and simple systems and thereby suit the needs of the many.

They do, however, depend on infrastructure enhancements for their further development. Some consideration of how networks and provision is likely to develop is, then, essential. It is of importance as much to broadcasters as to educators and the world of broadcasting keeps a keen eye on how the infrastructure is growing. *Euractiv 2008* report:

Mobile TV is another growing market⁷. Currently, over 70 per cent of Europeans have a mobile phone. Some mobile phone operators, foresee a 30% growth of the mobile TV market over the next three years. Orange report that mobile TV customers increasingly use the service, their continuous use jumping from an average of 17 minutes to 81 minutes per day in 2007.⁸

...The most advanced European market is Italy, where the platform was fully launched in 2006 and achieved some 800,000 subscribers by 2007. Other countries that have launched are Finland, the UK and Germany. It is expected that other major markets such as Austria, Switzerland, the Netherlands and France will soon launch. The market is expected to take off when certain key conditions have been met. These include:

- making available a broad offer of content that mobile companies can buy and air*
- coverage of most of the population*
- affordable prices of equipment and content*

These conditions are expected to be met by 2015.⁹

..... diversification of platforms encourages the relaxation of regulatory models, the maintenance of quality standards in audiovisual content regulation should become a rallying cry for professionals, activists at all levels that are committed to media pluralism, quality, and a European social model.

In terms of how individuals access and use ICT in everyday settings, *EurActiv* reports that ICT has become a natural part of most people's lives. It is not really 'new media' at all. Along with this development, different kinds of online learning environments are becoming more commonly used. People are using ICT for any kind of training at any level of their education; it offers tools for distant or independent learning in both basic and further/higher education.

Among the international experts consulted, consistent messages about increased use and demand are also reported, but with caveats and warnings of unintended consequences if due respect as to use of media is not recognised. They say that the impact of ICT and new media on language learning can be seen in changes in the way languages are learnt and taught. This, in turn, is related to a paradigm shift in the roles of learners and teachers. An examination of responses to the online questionnaire suggests that such changes and paradigm shifts are, indeed, occurring. Learners use various types of media to participate in direct communication with speakers of the target language. These range from videoconferencing which

...enables me to speak with native speakers and improve my pronunciation and confidence in speaking' to using social networking sites (SNS) such as the language-learning-dedicated LiveMocha¹⁰ and the socially-oriented FaceBook. As well as

⁷ Thomas Kirsch, 'Multi-channel Homes – Cable and Satellite TV', in IP International Marketing Committee, *Television 2007. International Key Facts*, October 2007, pp. 14–15.

⁸ 'Commission to Guide National Regulators on Mobile TV', *EurActiv*, 20 May 2008, available online at <http://www.euractiv.com/en/infosociety/commission-guide-national-regulators-mobiletv/article-172476> (accessed 23rd August 2009).

⁹ Alexander Shulzkycki, Senior Media Analyst, EBU, 'Analysis: Mobile Growth. Mass Market for Mobile Broadcast TV in Europe Still Unclear', in *DVB-Scene*, n. 25, March 2008, p. 13.

¹⁰ <http://www.livemocha.com>. LiveMocha is a dedicated language learning social networking site.

communicating with native speakers of the target language, learners are also able to communicate with other learners, and several respondents referred to, 'Audio-conferencing with other students.

What was interesting was that the 'teacher' role was rarely referred to by the international specialists. Amongst questionnaire respondents, this view was reflected; there seems to be a very clear belief that communicating with or listening to native speakers of a language or reading 'authentic' materials was the most useful way of learning that language.

The access provided by ICT and new media such as online radio and TV and newspapers in the target languages was widely cited as being beneficial. For instance, '...the on-line TV stations and opportunities to listen to native speakers either as a teaching aid or on news or TV programmes makes it easier to keep up a language' and, 'Internet Catalan newspaper opinion feedback is great because real people express opinions in their native language'.

Although some of those interviewed have taken part in formal language learning experiences *employing* ICT and/or new media, their informal experiences tended to focus on self-study, using resources such as CD-ROMs, online dictionaries and language learning websites. Online socialising with speakers of the target language was not an activity in which the expert informants had been involved for the purposes of language learning. Equally, respondents to the questionnaires did not seem to have used ICT/new media very often in formal language learning contexts; the most frequently-occurring use of new technologies appears to be for distance learning.

General feedback from tutors, researchers and students emphasises that the frequent use of and regular communication via networks should not be overlooked. They agree with Martin Weller, Professor of Educational Technology at the UK Open University (UKOU), when he explains:

Where Twitter and the like are most valuable is in building an online network,.... Very quickly that becomes better than conventional networks because at the same time you can talk about personal interests - films and so on - and people are more likely to help out when you have a problem or a question.

Weller believes that different roles in terms of learning and teaching of such content should be recognised:

.....it will be some time before the technology is embraced by the whole academic community. There is a still a question over whether a well-respected blog is the same as having peer-reviewed research articles, for instance, and using new technologies is still "bottom up" rather than forced on academics by their managers.

The balance between various delivery means varies considerably across national boundaries, but, as technologies converge, differences that are currently discernible gradually become less significant. The role of the technologies in learning reflects a broadly unsurprising set of responses from participants. It is encouraging to see from the online survey the overall positive attitudes to the potential use and exploitation of ICT and new media for learning purposes:

- 91%-84% of respondents agreed ICT and new media would help specifically with speaking, understanding others, reading and writing in the target language.

- 86% agreed technologies would help them 'to learn wherever I wished'.
- a high proportion of this experienced group acknowledged the benefits the experience had brought them: 77% - 69% agreed ICT and new media could have a positive effect on the 'softer' support/skills of:
 - confidence
 - organisation of studies
 - planning of time
 - learning matching own needs / personality.

In Finland, a country long noted for its advanced approach to the exploitation of new media, the following is reported, in terms of access:

In spring 2008, 83 per cent of people between the ages of 16 and 74 in Finland said they had used the Internet during the three months prior to the survey. The share had gone up by four percentage points from the previous year. The Internet is also used regularly and often. As many as 80 per cent of its users said they used it daily or almost daily. Only five per cent had used the Internet monthly or less often. The daily use largely also applies to elderly people. As many as 60 per cent of the people aged between 65 and 74 who had used the web in the past three months said that they were daily users. Daily use is also widespread among the whole population. In 2008, the share of daily Internet users was 66 per cent among the total population aged between 16 and 74. (Statistics Finland)

The responses from the online survey reflect that the use of computers was common among all 18 to 64-year-olds, with the vast majority of them using computers (in Finland the increase is estimated to be of 20 percentage points between 2000-2006). The most rapid increase is taking place in the age group of >54-year-olds, though in Finland, where the use of computers has doubled, it is higher. In general across all countries, similar trends could be seen in other groups using computers on a regular basis. It could be concluded that the regular use of ICT is gradually spreading to all age groups.

ICT and language learning

The use of ICT and new media for language learning can be seen as an area defined and shaped by factors which mainly fall into two broad categories: a) preparedness and willingness of the societies involved to adopt a 'digital' lifestyle and learning behaviours, and b) attitudes to and appreciation of language learning. In other words, the extent to which ICT and new media are currently being used for language learning depends on whether citizens in each country would use such media for other aspects of their lives, including learning, as well as on whether they have reasons and willingness to pursue language learning.

However territories differ with regard to the level of digital maturity, where a lesser spoken language is the native tongue such as in Greece or Hungary, the population shares a common

acceptance of language learning as an important aspect of contemporary life which needs to be pursued by individuals and supported by society more widely.

In Germany broadband penetration is high, and the market of digital services and products sizeable, not only among younger adults, but also for considerable sections of older people. Hungary reflects a wider political interest in the promotion of the Information Society, but access to infrastructures and development of digital literacy is slower than in more digitally advanced EU member states such as Germany and Finland. In less digitally advanced countries, there is a rapid development and a high rate of digital expansion.

In identifying characteristics at a European level that are symptomatic of current language learning practices, the individual contexts and social conditions cannot be ignored. The tension between extrapolating such identifiable strands whilst not misrepresenting specific conditions in any one territory pervades the study.

In terms of potential and value to language learners, the following view, reported from Finland, is generally reflective of messages from the eight countries in the study as well as the online survey responses:

Using ICT in teaching and learning languages enables new kinds of learners to access language studies: language learning is not dependent on time and space in the same way as traditional class teaching. It can also be a motivating learning environment for many, hence it serves certain kinds of learners. But obviously using ICT is not a suitable way for all kinds of learners. Especially if ICT is used for self studies, without a teacher around, it requires a great amount of self-discipline. But it clearly makes the possibilities for learning more varying. What is also important is that ICT requires new competences and further education from language teachers as well. What works in a book or on the black board [sic] does not automatically work on the screen. Teachers have to learn the importance of new kinds of help elements online and they have to learn to proportion the learning material differently in the new media.

Levels of interactivity and individual control over media and communication networks, and ICT in general, is growing in all countries. The nature of the practice, pre-disposition of a population to their exploitation and the ability to access new ways of working are determined by individual national circumstances.

Some key considerations/influences on take-up of language learning via ICT that are reported among respondents to the online survey from all countries include:

- Extensive use of new media for social purposes
- Reluctance/resistance to using social networking for learning
- Perceived value of new ways of working among teachers, some groups of learners and some employers
- Experience in use of media as an influence in pre-disposition to adopting new ways of learning.

The majority of respondents acknowledged the value of the use of ICT for language learning purposes. The majority preferred mixed methods with some face-to-face communication.

Respondents' perceptions of 'learning' must be borne in mind. Whereas the use of dictionaries or other related references is intentional and therefore 'learned' as far as they are concerned. They consider other contexts such as watching a foreign language film or reading a text/paper in a foreign language, an activity carried out primarily for a different purpose and therefore informal or incidental. Much of the latter category is not recognised as *learning* by respondents. These examples are though an important part of the picture of informal learning.

The spread of digital media in broadcasting has led to a widespread availability of multiple channels. There is a general recognition of the positive influence of media in language acquisition.

Although nearly all respondents agreed that there would be an increase in the use of ICT and new media to support language learning in the future (95% 'strongly agreed' or 'agreed'), a minority was 'sceptical about the use of technologies in language learning'.

Some respondents, who were willing to study with the support of new technologies, expressed the need for structure, support and interaction, and preferred formal online courses. Some respondents emphasised the communicative aspect in making use of ICT in learning, though preference for traditional media was also shown in some responses, with books valued for the good quality of texts.

Overall, although new technologies were seen as facilitating communication, some respondents perceived that technology-mediated communication lacked some important aspects and that face-to-face communication was more valuable to them. Overall, there was a difference between respondents in relation to their familiarity with available resources. There was a clear distinction between people who already used ICT and those who said that they would *like* to use them but did not know what was available. A lack of time and motivation to learn or acquire new skills were mentioned as reasons for not using ICT or other new media to support for language learning.

National initiatives for change

Most of the countries included in the survey have undertaken some sort of national initiative to influence the learning of foreign languages among the wider population. The nature of the actions varies considerably and the type of activity involved reflects the priorities among different nations. This emphasises the significance of taking account of national actions and tailored nationally-oriented programmes when planning any programme of collaborative or over-arching activity.

The nature of national action programmes is influenced primarily by the context and backdrop described in the previous section. For some, where for instance, tourism and related industries predominate, informal learning tends to be more significant and the move from this basis to more formal qualification-based work is less visible. Elsewhere, the action is prompted by an acknowledged recognition for and importance of qualifications. This can sustain and stimulate learning and motivation – as in France, for instance. Cultural heritage or a robust structure that supports the language and culture pervade national attitudes and influence the types of initiative undertaken. These tend to emphasise the development and promulgation of national priorities.

Reports from the eight sample states detail a range of national moves intended to harness technologies for learning, self-improvement and for recognised skills gaps among the population. All have had some impact on the direction of change if not always on the extent of the effectiveness, but are significant in that they shape the dominant characteristics of the trends and movements within each country. A consideration of each and the interplay between them are fundamental to the pattern of potential across a number of borders at European or even global level.

Initiatives at a national level¹¹ aim to influence or even ‘engineer’ change. The most extensive strategies and the most widely researched and reported are in Finland. It seems, though, that the messages from other countries via other areas of the study do not contradict the main themes within this work, and the key messages are largely consistent.

Spain reports that large public institutions are aware of the need to stimulate the growth of the sector of ICT and new media for language learning, including making learners aware of their importance. They also develop resources and an administrative structure with that aim. Some examples from Instituto Cervantes are Virtual Classroom, Office of Spanish in the Information Society, Second Life, etc.

The UK has focused its initiative on the Primary sector. The aim is to change cultural attitudes to language learning by targeting young learners and motivating them from an early age. It has been developed by a co-operation between the National Centre for Languages (CILT) and the government initiative team. The project is now well established.¹²

France has targeted three key initiatives at three different target groups: a) pupils in primary schools learning foreign languages in France, b) employers in companies abroad wishing to learn French for vocational purposes, and c) bilingual learners of French abroad. Activities emphasises locally-based centres and the influence of the desire for qualifications:

This situation has led to the development of a large market of usually small-to-medium size language learning centres, which thrive in neighbourhoods, cities, towns and many villages, and which cater for the provision of language education to most youngsters. These young learners attend language classes at school in the morning, but in the afternoon or evening they do their ‘serious’ language learning with their private teacher or even individual tutor, depending on what their parents choose or afford. Next to English, a minority of language centre students (albeit still a significant proportion) also attend lessons in French or German, or less commonly Spanish or Italian. They, too, aim at a certification, usually at B1 or B2 level but often also lower than that, depending on the time available they have before entering upper secondary education (when language learning becomes much less of a priority and main school subjects come into focus).

In Finland, there are four documented major strategy periods that have had varying focus areas and sub-strategies. The following passages are adapted from Taalas & Kankaanranta, (2008.)

The first strategy in Finland was published in 1995 (Education, Training and Research in the Information Society) and was an ambitious effort for establishing the guiding principles and building blocks for the Finnish information society. The objectives were striving and far-reaching. The main action lines in the 1995-1999 strategy were in

¹¹ See Case Studies, Annex IV.

¹² See Case Studies, Annex IV.

- *providing all citizens basic information society skills both within and outside the formal educational system*
- *focusing on teachers' professional skills in being able to support the ideas of lifelong learning and learner autonomy*
- *developing information products and services*
- *improving the opportunities for research in the information society*
- *building education and research networks.*

The second strategy 2000-2004 took on the challenges that arose from the impact evaluations of the first initiative. Now it was stated that ICT and course development must go hand in hand, where cross-disciplinary research projects were encouraged and supported, and where evaluation of all processes was put in the core of all development. The goals were to ensure equal opportunities for all to extensively utilise the information resources and educational services This was seen as the heart of the efforts to make Finland one of the 'leading knowledge and interaction societies'. The required skills for all are seen to be media literacy and technology skills and the means by which this can be realised is through the creation of virtual universities and polytechnics, through turning libraries and other public access points into mediatheques, and finally through guaranteeing an e-mail address to each citizen by year 2004.

The action lines and recommendations of the new Information Society Programme for Education, Training and Research 2004-2006 consist of three sub-fields: knowledge, contents and operating environment. In terms of competencies, the programme recommends the extensive use of information and communication technologies in teaching and learning at all educational levels. The aim is to improve the training of teaching personnel so that by the year 2007, at least 75 per cent of the teachers would have the necessary skills to use information and communication technologies in their work.

In 2006, a National Knowledge Society Strategy for 2007-2015 was drafted as part of the implementation of Finnish Government's Information Society Programme. The Strategy outlines a national vision and strategic intent concerning the kind of information society we want in Finland. In addition to the current state of the Finnish information society, the strategy describes changes in the national and international operating environment. It covers both technical infrastructure and support for lifelong learning in a range of different spheres.

The effect of national projects is positive overall (see Table 7 for a summary). The impact of new media and ICT continues to grow and, according to the experts interviewed for this study, ICT and new media have increased the possibilities to extend foreign language learning. The expert informants are however, doubtful as to whether this possibility has been recognised, understood and utilised sufficiently in formal education. One expert, for instance, identified at least two different development paths for the use of ICT and new media in formal learning and teaching; a) materials design and b) pedagogic design/education.

Table 7: National initiatives to improve foreign language learning uptake

	KEY FEATURES	KEY INFLUENCES	SIGNIFICANT CHANGES
Cyprus	<p>Ministry of Education provides software and teaching support</p> <p>The start of language learning moved to earlier age</p> <p>Foreign languages 2&3 introduced in primary education</p> <p>The number of foreign languages in secondary education increased</p>	<p>Teachers inexperienced</p> <p>Not familiar with user-generated content</p> <p>Weak infrastructures</p> <p>Not enough curriculum flexibility</p>	<p>Ministry of Education / Pedagogical Institute improves teacher and student access to ICT, provides new teaching materials including software, provides teaching support</p> <p>ICT recognised as part of foreign language teaching and learning in schools</p>
Finland	<p>ICT has increased potential, but not yet fully harnessed for language learning</p> <p>Most younger learners have good interactional skills in English</p> <p>Adult learners supported formally and informally</p> <p>Low cost / free language learning provision</p>	<p>Excellent ICT infrastructure nationally</p> <p>Schools do not yet have facilities</p> <p>Curriculum structure lacks flexibility to adapt</p>	<p>English in media and social networking major influence on use among younger users</p>
France	<p>2007 National initiative to promote</p> <p>primary level contacts and exchanges - English/German/Spanish/Italian</p> <p>e-twinning initiative in secondary sector</p> <p>2007 promotion of French among companies abroad</p>	<p>Creation of <i>grande region</i> to promote cross – border working/use of ICT</p> <p>Positive use of Embassies to promote French</p> <p><i>Sections bilingues</i> supported via virtual working</p>	<p>Strong cultural heritage exploited at national level to promote French</p>
Germany	<p>Promotion of national language policy</p> <p>Exploitation of ICT / new media to promote German worldwide</p>	<p>Educational policy mainly organised at the federal level</p>	<p>Use of ICT and new media in language learning is an important sector in language learning market</p>
Greece	<p>Ministry of Education provides software and teaching support</p> <p>The start of language learning moved to earlier age</p> <p>Foreign languages 2&3 introduced in primary education</p> <p>The number of foreign languages in secondary education increased</p>	<p>Teachers inexperienced</p> <p>Not familiar with user-generated content</p> <p>Weak infrastructures</p> <p>Not enough curriculum flexibility</p>	<p>Ministry of Education / Pedagogical Institute improves teacher and student access to</p> <p>ICT, provides new teaching materials including software, provides teaching support</p> <p>ICT recognised as part of FL teaching and learning in schools</p>

Hungary	<p>Significant increase in foreign language teaching in schools</p> <p>Major national initiatives for the development of digital educational content in foreign languages</p> <p>Improvement of school ICT infrastructures</p> <p>Teacher training and support</p>	<p>Foreign languages are 'problematic' in education</p> <p>Weak infrastructures</p> <p>Teachers inexperienced</p>	<p>Use of ICT in language lessons increasing</p>
Spain	<p>Ministry of Education promotes collaboration with BBC over 'That's English' to promote English via TV</p> <p>National collaboration with Instituto Cervantes to promote virtual classroom – AVE – online resources for teachers</p> <p>Collaboration with Red Cross & Instituto Cervantes aimed at Spanish for immigrants</p>	<p>Little social acceptance of ICT outside work environment</p>	
UK	<p>2002 National Strategy for Languages: not compulsory to promote language learning in primary sector</p> <p>2003 national 'Pathways' initiative to promote models for MFL in vocational settings – 60 now in place</p> <p>2004 National Curriculum changed to remove obligation to study MFL in secondary curriculum</p> <p>2008 new qualifications in Adult Learning/Vocational sector (PTTLS) introduced</p>	<p>Lack of resources to sustain initiatives/train teachers</p>	<p>Patchy success – funding unreliable, often based on short-term projects</p>

Resources need to be easily and widely available. One example of a tool aimed to help address this situation is found in an initiative from the Spanish Ministry of Education, which has developed an authoring tool for teachers who wish to create multimedia activities for language learning (mainly English) <http://www.isftic.mepsyd.es/>.

However, the landscape of language learning evolves less rapidly than the evolution of technologies. The time difference between the appearance of a technological tool and its integration into language learning settings and, more importantly, pedagogy can be significant. The establishment of its use, is crucial and, in general, over a longer time period than was once thought. This observation is recurrent in the majority of studies on the use and integration of ICT in (language) learning¹³.

It has been noted by a number of informants that once teachers receive training for using ICT, they go on to create their own resources and use new media more often, demonstrating the importance of training for disseminating the use of technologies in language learning.

A traditional model of education (teacher-led learning) is still popular and even prevalent. In Spain for instance, there is not as yet a general culture of innovation. Many teachers still prefer the chalkboard. In some cases, this is a consequence of knowledge and reflection about the use of different tools and approaches; in other cases, this preference is the result of reproducing traditional methods and materials without knowledge or reflection. Furthermore, training and development for teachers is very limited, thus contributing to maintaining traditional methods and materials.

There is a general feeling in Finland, where innovation in language teaching is more common, that the line of development in materials design has followed the traditions of language teaching/learning reproducing the 'cognitive model' with individual learners working with grammar and vocabulary exercises online or through a CD-Rom. The basic principles of such exercises and activities are the same as for 'traditional' teaching materials (cf. Warschauer's 'behavioristic' CALL (1996), Bax's 'restrictive' CALL (2003)). Obviously, the materials can be used in many ways, as part of traditional settings and in innovative approaches, but there is little evidence of the latter approach taking place. Other new media resources do not seem to be used systematically in language teaching and learning - and it seems that teacher education, even in Finland does not give proper training to teachers to allow them to be able to integrate these opportunities into their teaching. These are widely reported views and constitute part of the reason for resistance to using technologies in teaching. The evidence from Finland is again reflective of the situation more widely with regard to ICT exploitation and its potential:

According to the experts, there seems to be some sort of a cultural transition going on in the field, however. Although much of the language teaching in Finland is "materials-based" and teacher-led, there is growing interest and belief in other kinds of approaches which allow the learners more initiative in their "own" learning projects, using the media that they themselves feel comfortable with on the basis of the experience from informal learning situations outside the classroom. Although the "learning hype" has focused attention to these aspects for a longer time, this change of thinking is not yet visible in the teaching field on the large scale.

¹³ See for example the discussion of two experts on integration of ICT, Alain Chaptal and Serge Pouts-Lajus (2006) <http://www.cndp.fr/DossiersIE/55/ptidos55.asp>

In general, young people in Finland have strong (interactional) language skills in English. Much of the credit for this is due not only to language teachers but to the English-language-rich environments and networks in which children and young people move in their free time, spending time, solving problems, gaming etc. If the educational field took this into account seriously, language classroom practices would change from materials-based approaches to problem-based approaches and the new media could be used as natural tools in everyday work and study.

Any tool/software/media can be used to support language learning. The choice and use depends on what one actually wants to learn and do in order to learn. This view is at variance with commonly held public assertions. However there are differences in terms of take-up between the countries of the study, in contrast to the Finnish context, changes in the Greek context are somewhat lagging:

(the) rapid expansion of a broadband culture, (is) a very recent development mainly in urban centres which has reached Greece with a delay compared to most other European countries.

In general, the use of gaming is increasing, Finland reports that Internet Relay Chat (irc) is especially popular among game-players as they use it for 'gathering together', 'forming teams', and 'exchanging ideas and contributions in solving problems, making strategic plans in advance for the game etc.' These users also typically use group audio tools to interact via voice during the game giving orders, warnings etc. Skype is used by students to contact some teachers and each other, and they often use the free university wireless network for IP calls with their mobile phones. Some students are frequent users of wikis and blogs, more and more teachers use them, too, for various purposes.

Current language learning practice

In all eight countries studied, informal learning among adults proved significant. The extent varies according to circumstance but, again, where costs are low, as in Finland, for example, participation rates are highest. In the UK, where subsidy was considerable until around 3-4 years ago, this was also true – numbers have dwindled considerably since costs have risen, suggesting that whatever the value of the skill, the final cost is a key factor in uptake.

Significant differences in practice across the countries are found in the actual use and take up of ICT and new media for language learning. This seems to be influenced in the main not just by the availability of resources – a clear pre-requisite factor – but, importantly, also of the cultural heritage of learning and teaching. In Spain, for instance, individuals comfortable with using ICT in work situations, are reluctant to adopt ICT for learning purposes. A similar cultural heritage is detected among teachers and teaching practice in that country. The tradition for change is an important factor in determining the likely influence of new ways of (language) learning available via technological innovation. These issues are discussed in more depth in Annexe III.

Despite differences in language learning practices, a spectrum of common features is discernible. The learning of foreign languages and their place within the curriculum seem to be linked to the value attributed to them by individuals and thence embedded in subsequent post-school or work-place study. These are inter-related factors so that the value is fostered in early educational experience. This is based on evidence and it seems that the value of

language learning inculcated in early learning pervades on-going and lifelong attitudes across the population.

It is hard to make firm statements about the depth of the identified influencing factors (see Table 8), as national cultures embrace other specific and significant influences. Where official national languages are lesser spoken or minority world languages, such as in Hungary, Finland and Greece, these relatively small populations, turn to other languages. English is, as elsewhere, the first of these. The importance of that language and how and where it is delivered varies from one country to the next.

In some countries, such as France, the strong cultural value placed on the official national language(s) creates a climate where bilingualism is encouraged – English is seen as important but not at the cost of French language learning. Finland registers a fear of just such a threat to one of its official languages with the increasing dominance of English in the academic publishing market – a situation that may well presage a similar situation in other countries in time.

In the UK, the majority of the population, with English as a first language and non-compulsory secondary foreign language study, shows low levels of perceived value of learning foreign languages. However, there is a growing recognition of the value of language skills as informal learning, such as those studying foreign language lessons outside study programmes, outnumber those taking formal language learning study courses. This prompts major efforts to be targeted at such groups, whilst foreign language promotion is limited to the primary sector where the ambition is to foster early learning values that will be voluntarily carried through to later stages of study (see Table 8 for a summary of current practices).

Table 8: Current language learning practices and the role of English

	KEY FEATURES	KEY INFLUENCES	SIGNIFICANT CHANGES
Cyprus	Post school opportunities for language learning for teenagers and adults Number of foreign languages taught Large private market	English considered valuable	Important for tourism Civil Service demands a minimum of one foreign language
Finland	Companies sponsor language learning Companies use mobiles linked to resources 85% of Finnish speakers speak English ICT in schools not high - 35% Post school learning high – free time	Up to 1980, English was a foreign language; now 'everyday', seen as <i>lingua franca</i> Learning motivated mainly by need for English at work and in study	Low cost/subsidised rates for learners English seen as possibly replacing other languages in e.g. academic publishing

	KEY FEATURES	KEY INFLUENCES	SIGNIFICANT CHANGES
France	Language learning perceived as important Mainly prefer human interaction ICT for learning spreading across age groups		
Germany	Language learning for adults popular via Further Education networks Older learners prefer face-to-face contact	An increasing number of people use English at work (estimated: one out of four)	Little ICT in Further Education network – key delivery network Level of English not high at end of secondary school – high rates of learning post-school
Greece	Language learning centres in local areas Qualifications important to younger learners	Availability of English-speaking TV via films etc. is important English main MFL at school English is needed for study	Tourism is an important influence in informal learning
Hungary	Not high number of language learners in population – mainly younger students Traditional qualifications dominate Little take up of ICT for language learning	English is needed for work and study	Increase in global companies operating in country
Spain	Evolution in teaching methods Publishing houses encourage English	Dominates national initiatives Tourism has raised need for English	Major increase in teaching materials available, TV, films and BBC World Service
UK	Foreign language teaching focus on EU languages with a growing demand for Mandarin 40% of population have 1 foreign language – French – 8% speak >1 foreign language Teacher supply mainly French Very active Higher Education learning – informal personal learning Adults important in informal market Online learning and resources positive influence	First language for most of population Teaching of English focused on second language speakers	Non-compulsory secondary school subject No strong cultural values in foreign language learning

The influence of English

There has been a significant shift in the role of English language use in society. This view from Finland is typical of other countries surveyed:

... English used to be considered a foreign language in Finland, but today it is used as an everyday language by many people in several fields of life. There can be seen a range of reasons behind this development: urbanisation, globalisation and internationalisation, development of technology and rise of the knowledge society, and transnational popular culture and entertainment industry, mainly of Anglo-American origin (Leppänen & Nikula 2007¹⁴) Unlike with other languages, the increased use of English does not stem from the number of English-speaking immigrants. Instead, English has become an essential lingua franca, an operational language used within companies (Kankaanranta 2005¹⁵) and academic contexts (Leppänen 2003¹⁶). However, the use of 'iEnglish' has spread across all age groups and fields of life. One of the drivers for this development is the media. Unlike many other Europeans, Finns have been hearing English in television and films from the 1960s onwards, as the programs are subtitled, rarely dubbed. When the Finnish Broadcasting Company (YLE) decided to use subtitles (Finnish or Swedish) instead of dubbing on television, they had unintended effects on language education policy and that this practice has even been seen as one explanation for the results.

The link between use of technologies especially mobile technologies and gaming tools has furthered the use and need for English. It is necessary to differentiate between console games where you can choose which language to use and massive multiplayer online games where the language is more likely (though not necessarily) English. Whatever the context, the language is a tool, not a learning skill in itself. Most users are barely aware of how they communicate and professionals would often not define the language they use as relating very closely to formal use.

The dominance of English within these new environments is growing and cannot be overlooked. Evidence from both the online survey and from the qualitative data reflects the growing use of English as more speakers of English as a first or second language exploit the technologies. The future, then, as massive multiplayer online games are set to expand, is arguably for the use of this particular form of English to proliferate still further.

Cultural and historical inheritance plays a large part and, in some instances may even be the driving determinant of learning behaviour. According to *Wikipedia*:¹⁷

Approximately 375 million people speak English as their first language¹⁸. English today is probably the third largest language (by number) of native speakers, after Mandarin Chinese and Spanish. However, when combining native and non-native speakers it is probably the most commonly spoken language in the world, though possibly second to a

¹⁴ Leppänen, Sirpa & Tarja Nikula. (Forthcoming) Diverse uses of English in Finnish society: discourse-pragmatic insights into media, educational and business contexts. *Multilingua*.

¹⁵ Kankaanranta, Anne "Hej Seppo, could you pls comment on this!" - Internal Email Communication in Lingua Franca English in a Multinational Company. University of Jyväskylä, Centre for Applied Language Studies, available also <http://ebooks.jyu.fi/solki/9513923207.pdf> Jyväskylä, 2005.

¹⁶ Leppänen, Sirpa. 2003. Universalistic handbook discourse and local needs of writers: a Finnish perspective to handbooks for academic writers. *TEXT*, 23/1, 53-87.

¹⁷ http://en.wikipedia.org/wiki/English_language#Geographical_distribution

¹⁸ Curtis, Andy. *Color, Race, And English Language Teaching: Shades of Meaning*. 2006, page 192.

combination of the Chinese languages (depending on whether or not distinctions in the latter are classified as "languages" or "dialects"). Estimates that include second language speakers vary greatly from 470 million to over a billion depending on how literacy or mastery is defined and measured. Linguistics professor David Crystal calculates that non-native speakers now outnumber native speakers by a ratio of 3 to 1.

Social context and foreign language learning promotion

Structural characteristics reflect exposure to languages and/or motivation for language learning. A number of common factors in encouraging learning were reported across the eight countries of the study. However, the depth of influence of ICT and new media, and the extent to which country specialists felt that greater impact on learning could be achieved, varied considerably. A synopsis is presented in Table 9 below.

Finland provides evidence of how by investing in not only infrastructure but also in offering training in its pedagogical use and exploitation, in this case from within the school curriculum, has had a marked effect on behaviours (see Table 9). The range and extent of use of technologies in that country across the wider population is markedly different from other countries. This would suggest that addressing exploitation *within a single context*, such as language learning may not be the most effective starting point.

Table 9: Summary of social context and foreign language promotion

COUNTRY	KEY FEATURES	KEY INFLUENCES	SIGNIFICANT CHANGES
Cyprus	2 communities Greek & Turkish 2 official languages English widely spoken	Tourism Commercial centre for Region Migrants from Eastern Europe Commercial centre for Region Migrants from Eastern Europe Good provision of language learning in school English Important for study abroad Relatively low ICT penetration, low level of infrastructure	Increased immigration in recent years Increasing additional (private) expenditure by families on language learning Increasing interest in learning languages other than English
Finland	Two official Languages In 2006 > 85% spoke > 1 foreign language 82% have some English	High level of technical Infrastructure Foreign language learning embedded in education Media use of English Internet use high	Rapid increase in technical infrastructure Widespread international media

	KEY FEATURES	KEY INFLUENCES	SIGNIFICANT CHANGES
France	<p>French actively promoted + other foreign languages</p> <p>National promotion via Education + Foreign Affairs Ministries</p> <p>National support for Teachers</p> <p>French promoted for commercial use abroad</p>	<p>Enduring cultural support for French language</p> <p>Strong cultural heritage</p> <p>Emphasis on formal qualifications</p>	<p>Support embedded at national level via infrastructure</p> <p>Centralised structure</p>
Germany	<p>English taught in all schools to basic level</p> <p>50% of population speak some English</p> <p>High uptake of private learning</p> <p>Protection of regional / minority languages</p> <p>English and French widely spoken</p> <p>High interest in language learning among adults</p>	<p>High influx of immigrants in previous decades</p> <p>German as foreign language is popular</p> <p>Good provision of language learning in school</p> <p>High ICT penetration, good infrastructure, production of technological innovation</p>	<p>Rapid increase in technical infrastructure and widespread ICT use</p> <p>Increasing interest in language learning for career</p>
Greece	<p>Traditional trading nation</p> <p>English main foreign language in secondary schools</p> <p>Learning English from a very young age is widespread</p> <p>A large Greek diaspora worldwide, learning Greek as a second/foreign language</p>	<p>Tourism</p> <p>Qualifications valued</p> <p>Provision of language learning at school complemented with private classes</p> <p>Competitive labour market / unemployment</p> <p>Relatively low ICT penetration, poor level of infrastructure</p>	<p>High levels of immigration in recent years</p> <p>Increased additional (private) expenditure on language learning</p> <p>Increasing interest in learning languages other than English</p>
Hungary	<p>Minority of population speak a foreign language</p> <p>Language learning is increasing</p> <p>English and German used mainly for commercial use</p> <p>English becoming predominant over German and Russian</p>	<p>1989 political changes</p> <p>1989-2004 change from Russian mainly to Western European languages</p> <p>Rich language learning provision in schools</p> <p>Relatively low ICT penetration, low level of infrastructure</p>	<p>Opening up of Western TV/media</p> <p>Increasing interest in language learning for career prospects</p>

	KEY FEATURES	KEY INFLUENCES	SIGNIFICANT CHANGES
Spain	Technology use increasing in Further/Higher Education ICT rarely used in learning Prefer face-to-face Little public confidence in ICT Commercial use increasing English dominates	Traditional cultural heritage No culture for innovation	High level of immigration
UK	Legacy of English 8% population speak > 1 foreign language Little support for Modern Foreign Language (MFL) teaching 2002 National Language Strategy introduced Encouraging primary school teaching MFL Only 3% of primary schools offer MFL teaching across all ages	No cultural heritage of social use of foreign languages Removed from secondary curriculum in 2004 Foreign language learning mainly outside formal curricula Some specific bi-lingual provision in e.g. Wales	High level of immigration

Public broadcast media as an influence on language use and acquisition

As communication media become more extensive and their use proliferates, access to other languages and cultures is also increasing in these environments, but the inheritance of English as a world language has left a widespread and enduring legacy. This creates a specific context within which it may be more problematic to penetrate culturally embedded attitudes or to take action to counter this lasting effect.

More widely, television programmes and films reportedly influence attitudes towards learning English, and thus functioned as an informal learning tool. Nowadays, new media, such as the Internet have a significant role as an informal language learning environment for children and teenagers (see e.g., Leppänen 2007) as well as adults. Discussion forums on the Internet, taking part in virtual communities, and interactive online games are ways of learning foreign languages.

As the dominance of English increases, concerns have been expressed that English will negatively affect the national languages and minority languages, that it may even replace them in certain areas of language use, such as academic publishing, and that it might negatively affect the studying of other languages. Similar discussions have taken place in other European countries.

The same message is reported from relatively recent groups of users of new technologies, such as Hungary:

...in this context, the primary world language, English, has gradually sidelined all the other foreign languages traditionally present on the Hungarian language learning scene, including the primary regional lingua franca, German.

Perceived values of language learning

An existing skills base developed via wider social and national initiatives obviates a significant barrier reported widely from the field. Namely to simultaneously expect to develop skills in both the target learning areas and in ICT literacies creates user-resistance.

It seems that progress from one area of experience to another and building from a basis of understanding, familiarity and confidence among the target audience is the route to embedding new learning experiences. This is supported by evidence from elsewhere in the field studies, where teachers and other providers of services report that learners with experience from other realms of life such as study or work are both more prepared to use and create language learning opportunities in their own time and also place greater value on the investment of effort in using ICT and new media for learning purposes (see Annexe III for more detail)

However, creating a transition whereby existing skills can be used to advantage for language learning is less straightforward. It is widely reported and commented upon by users directly (see Annexe III for more detail) that where skills gained elsewhere are applied for social networking purposes, users do not wish those personal uses to be transgressed for different purposes – such as language learning.

Changing behaviours in language learning: Formal or informal?

This ‘academic’ distinction may not be very useful as users themselves do not differentiate but move across and between applications depending on the purpose of their use. It is, nonetheless, one which is prevalent among teachers and educators and, as such, requires exploration.

With the growing trend towards individuals taking control of their learning and developing specific skills, the starting points, motivations for learning and ambitions will be vary. Indications are that across the wide range of individual pathways, there is evidence of learning mainly comprising a mix of formal *and* informal learning. Once embarked on a formal programme, an individual may choose to branch off into an area of less formal work that provides greater personal stimulus, and, similarly, a starting point of some informal learning may motivate further study. They generally do not remain mutually exclusive.

Learning may be applied and used in some informal settings and accessed *in situ*; for example, in a gallery or museum. This is highly motivating and is one dimension that is recognised, though perhaps under-exploited currently. Immediate access to instantly available relevant information or learning has a high value to individuals. One instance of how a demand for languages around events, travel and general informal use is being exploited effectively occurs in the example of *Praxis Language*, a company based in China

and cited as a case study.¹⁹ *Praxis Language* is located in Shanghai and aims to teach spoken Mandarin Chinese, Spanish, Italian, French and English using, 'a networked approach to pedagogy, teaching, and lesson design, together with the latest available tools and technologies. Its success in exploiting many aspects of currently smaller-scale areas of activities such as in sport and other international events warrants greater publicity, and investigation as to potential for collaboration (see Table 10 for a summary of current perceived values).

The idea that gaps in formal knowledge may be filled by immediate access to informal sources on personalised devices provides an enticing scenario and one that would seem to mirror needs for learning to be directly and personally relevant.

It is difficult by its nature to evaluate and measure the extent of informal learning. Evidence of informal learning tends to be located in small-scale activities carried out among small groups and across a variety of routes and directions not directly linked to formal modes of learning. Outstanding areas to be further investigated include:

- social communication as a regular, systemic component in formal or non-formal language learning and teaching practices
- social networks as integrated, occasional or one-off additions to complement formal or non-formal language learning and teaching practices
- the development of alternative, blended approaches to formal and non-formal learning and teaching practices
- the relationship for users between formal and informal learning
- improving the offer of informal opportunities for language use / learning through increased access to and use of the ubiquitous range of digital resources in personal and professional life
- raising awareness of the potential value of new environments and modes of learning especially where the prime motive is personal value, self-interested information or improved entertainment / leisure value, such as travel

Early stage studies and embryonic indicators of future activity and signs of shifting priorities are suggested among teachers and learners.²⁰

Despite the dearth of evidence, it is clear that students and tutors in all sectors do make use of informal learning.

¹⁹ See Case Studies, Annexe IV.

²⁰ An Overview of Mobile Assisted Language Learning: Can mobile devices support collaborative practice in speaking and listening? Kukulka-Hulme, a. & Shield L. The Open University, UK, 2007.

Table 10: Perceived values of ICT in language learning/critical success factors in improving outreach

	VALUE OF ICT IN LANGUAGE LEARNING	CRITICAL SUCCESS FACTORS	SIGNIFICANT CHANGES
Cyprus	Less developed than in the rest of EU apart from workplace Urban/rural divide Home-learning popular	Teacher training provision expanded OU big influence in Cyprus	Plans to improve ICT access for all schools Imports ICT mainly from UK/Greece
Finland	Since 2004 media literacy in school curriculum 80% 16-74 year olds use Internet daily	Highly professional teaching. Profession - 5-6 years study Need to address gap between formal and informal learners Improved materials design needed based on better ICT based pedagogy to improve uptake	1995 launched training & research strategy for Information Society – twice updated since Teacher training
France	Urban/rural divide Increased access and use at home – but not for learning	Teacher training as CPD Pedagogical development lags behind technological development	Increase in user-generated content Increase in podcasts for language learning Increase in whiteboards for schools
Germany	ICT not used widely in schools Good broadband connectivity Few adult learners use ICT	Few new materials in schools Market small – critical mass needed	
Greece	Slow ICT development ICT increase in urban areas		ICT increasingly used by cultural institutes for teaching
Hungary	Traditional examinations dominate High use of mobiles –internet lower School rarely use ICT for MFL teaching	Re-training of teachers Improved uptake in school learning	Increase of English in the higher education sector
Spain	ICT developing very fast Used mainly informally – blogs/discussion forums Main value work/study Internet used like large resource library Increase in use in schools/colleges ICT mainly used for individual study	Limited resources for schools New teacher training opportunities needed – updating Increased investment	Ministry of Education developed authoring tool for teachers

	VALUE OF ICT IN LANGUAGE LEARNING	CRITICAL SUCCESS FACTORS	SIGNIFICANT CHANGES
UK	<p>National initiatives to increase use in schools</p> <p>Schools well equipped</p> <p>Good access to networks in schools and further/higher education</p> <p>Mainly take up among better students</p>	<p>Little uptake of MFL</p> <p>Teacher training updates within CPD</p> <p>High informal use as information resource</p> <p>Few role models of successful learners/language users</p>	<p>High investment in schools' ICT infrastructure</p> <p>Specialist language schools network</p>

Motivational considerations

Motivations vary across nationalities. In general, many of the online survey respondents acknowledge the importance of language skills. Two identifiable social motivations for language learning were:

- communicating with friends from other countries
- being able to follow foreign media and to enjoy culture (films, books) in their original language.

Overall, and unsurprisingly, those from minority-language cultures are most positive. For instance, Finns have an overwhelmingly positive attitude towards learning foreign languages. Language skills are highly valued: according to the online survey, the vast majority of Finns who responded considered language skills very important for both personal and professional advancement and from the point of view of cultural value.

ICT and new media can facilitate language learning to a great extent. As an informant stated 'ICT facilitates a more complete education. Languages are learned in a more fluid way'. However, some conditions apply. For example, as noted by another respondent, 'in order to get an impact on learning, it is necessary to have technical capacity and educational permeability'. One respondent cited that it allows immediate and continuous feedback, which improves motivation to learn.

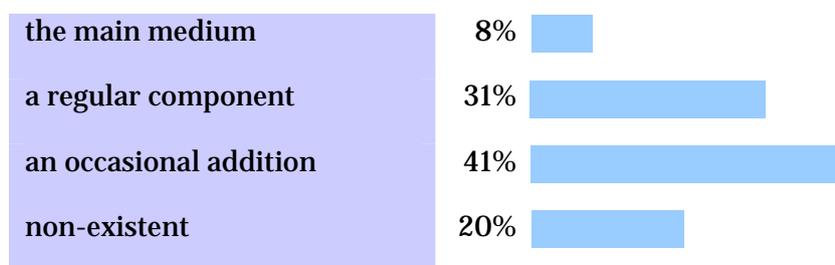
The main advantages of using ICT for language learning were fairly consistently identified (see Table 11). An analysis of Spanish respondents' comments provides an insight into a typical set of responses. People who responded to question D3 of the on-line questionnaire (see Annexe II) from Spain mentioned the following advantages of improving language skills through the use of technologies:

- convenience
- flexibility
- covers all skills
- access to resources / self selection of material

- speeds up learning
- allows regular practice in several languages
- allows direct communication
- helps to make the language more understandable
- allows access to other cultures
- helps to detect errors / self improvement
- practical / accessible / innovative
- easy to use
- improves the exposure to languages / improves retention
- it is inexpensive.

Below relevant responses from the online survey across the eight countries of the study are summarised.

Nearly all respondents (92%) had communicated in a foreign language online. Of this 92%, 66% were in environments where communication was in more than one language. However, for many, technologies were not part of their language courses, and they reported that computers / technology were:



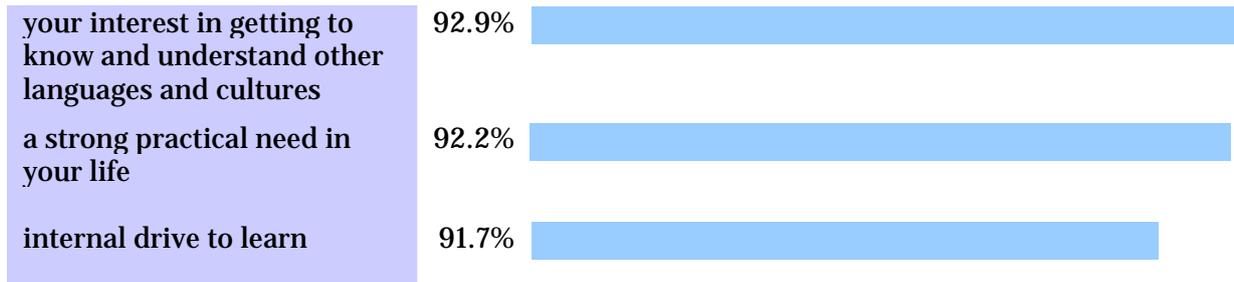
A wide range of technologies was reported as being used in language learning, some of them more popular and useful than others. It is notable that across different cultural and historical contexts, the access to and availability of films, broadcasts and other shared media sources such as social networking sites is having an increasing influence on both use and practice.

Even among the lowest motivating factors, across all respondents, listed below, around 50% still 'strongly agree' or 'agree' as being motivated by the following points:

- saves time/effort
- keeps you interested
- non-threatening learning environment

- value for money
- familiarity with source
- new way of learning, different from previous experience.

When *all* online respondents were asked to identify the factors that encourage them to learn languages, the top three motivators were ('strongly agree' and 'agree'):



The influence of interculturality at home, personal background and learning community based languages is low and among the lowest motivations for learning a new language. The motivators in domestic / home environments for *all* respondents were ('strongly agree' and 'agree'):

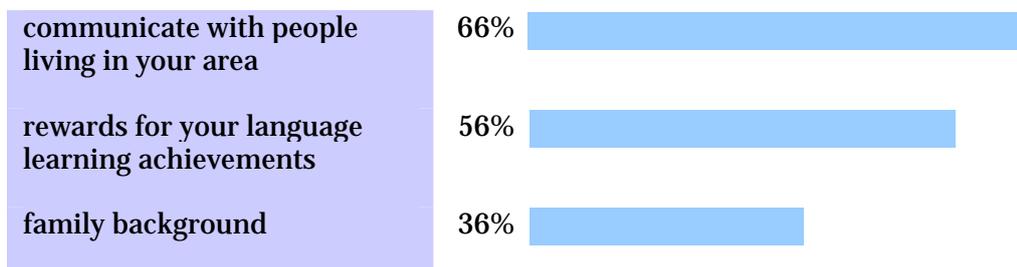


Table 11: Selected, illustrative respondent comments on personal learning motivations

PERSONAL CIRCUMSTANCES	TYPICAL COMMENTS
PERSONAL LEARNING MOTIVATIONS	<p>My mother was Danish and when I was born I was exposed to three languages simultaneously.</p> <p>My parents who themselves had not been very good at language learning made friends with people from the UK; their visits, correspondence and the "carrot" that my sister and I would get the opportunity to visit them plus a very enthusiastic English teacher were the most important drivers for me when I learned my first foreign language</p>
TRAINING/ GENERAL UPDATING	<p>I did my MSc with constant email/word processing/ research I've also used it with students doing Internet conferencing</p> <p>Through computers I can keep in touch with many people who speak different languages.</p> <p>So I can at least maintain my language skills and maybe even improve them.</p>
TRAVEL	<p>In my personal and professional life the fluent use of my first and second languages and other (3) foreign languages has been essential.</p> <p>Living and working abroad in international environment and in international tasks has given me</p> <p>the confidence of communication in various multilingual and multicultural environments.</p> <p>Languages have a fundamental role, unfortunately they are totally unrelated with my current job situation.</p>
SELF STUDY	<p>Learned to master the Russian language.</p> <p>Learned to speak Catalan thanks to Internet</p> <p>Listen to Chinese (movies) in order to improve my knowledge and pronunciation</p>
INCIDENTAL LEARNING	<p>I study the latest scientific concepts on line. I also improve my foreign language skills better than ever</p>

Note: This is a synopsis of the full summary – see Annexe III for full report.

Personalised learning

A consistent message from all areas of the study is that of a demand for personalised or individualised learning content. The demand arises for a number of reasons. Among these are time constraints imposed by busy lifestyles, multi-tasking where skills required are multiple rather than a narrowly focused desire to learn languages.

This trend is evident amidst concurrent developments in the wider media where multiple providers feed the markets and most, if not all, providers offer online and web-based resources. This provision allows the consumer to select channels and to programme personal viewing and listening selections. As a result, any of the resources on offer can remain undiscovered in the increasingly crowded, undefined and limitless virtual environments.

Despite, or maybe because of, the current economic downturn, public attention is turning to the importance of skills and work-based learning and self-development. There is a focus on

how individuals can take on responsibility for self-improvement within busy life-styles and economic and time restrictions.

The proliferation of content and free resources alongside the availability of ever-more diverse commercial content has led consumers to critically evaluate what they use and its value within their personal life and context. Today's consumer is well-practised not only at multi-tasking but at seeking out best value, creating personal targets and seeking the most effective means to achieving ambitions.

In language learning, this has led to a prevalent and understandable demand for personalised learning and this trend is reported at in all parts of the study, qualitative and quantitative and from amongst experts in the field. It has grown from the extensive use of social media as explained by an experienced tutor in distance education:

One aspect that is prevalent is the use of social networking to supplement more formal learning – so the use of Facebook etc is exploited as learners exchange experiences, or practise their learning etc. The use of Tandem Learning sites in addition to any other learning is also very popular, as well as open sourced learning from sites such as iTunes University – these are rarely used on their own but are acknowledged as useful adjuncts to the learning 'course'. The BBC sites are also useful and popular on an informal basis.

From this typical experience, learners move on to creating their own environments as is reported from Finland :

There is a relatively new interest in personal learning environments (PLEs) emerging in the e-learning domain. This interest is motivated by the increasing understanding of learning being a lifelong and wide, personal process that exceeds the borders of individual courses and learning providers. The strength of the PLE concept is that it intends to bring together learning that takes place in a range of contexts: at home, in the workplace, within formal learning programmes or through personal interest. Created and developed by learners themselves, PLEs increase the learners' control over their own learning processes and promote self-direction and self-learning, thus helping learners to establish their personal educational goals. The PLEs are a clear move away from the VLE's that are very often institution-based platforms that have quite a little (individual) learning support readily available and have a fixed structure.

Making use of the social media tools and applications, PLEs merge the boundaries of informal and formal learning. Web 2.0 tools, such as wikis, blogs and social bookmarking, are often used by students in their spare time, but the potential of the tools is seldom put into use for language learning purposes. The social media applications hold a great potential for language learning, as they respect its interactive nature, open the classroom to the global Internet community, enable creating and sharing content, and support meaningful communication and knowledge building.

Although PLEs are personal and private in the sense that they are created after the users' individual goals and preferences, they do not exist as isolated spaces but connect to form a growing learning ecology that entails both private and social space. The combination of the evolving personal and social spaces within formal education naturally evokes questions concerning the relationship between private and institutional space, and the role and affordances of the teacher/tutor. It is clear that the increased learner autonomy

and self-direction call for change in pedagogical practices – rather than an application, PLEs are a new approach to the use of learning technologies.

In the context of language learning, the PLE approach provides answers to many of the challenges raised by traditional language learning methodologies. Among these are the ability for personal and private rehearsal/practice, learner control over progress monitoring/flexibility of time and place of learning. Above all, is the control that new technologies delegate to the individual learner. This individualisation of learning programmes is difficult if not impossible to achieve in a group setting with a face to face teacher-led session. Technologies can overcome a basic tension in traditional teaching, namely: the need for individual interaction and collaboration, on one hand, and the need for a personalised approach that respects the needs of individual learners on the other.

A consideration of how to best to address pedagogical approaches within the new contexts is more complex, it relates to issues of financing and management, as well as to public responsibilities and related structures. That personalisation is changing habits and having an impact on what learners seek to achieve is not in doubt. Spain, for instance, reports on how learners are combining new media to create their own preferred mix :

... by combining these elements with blogs and Wikis as well as other interactive elements, learners are increasingly able to fashion their learning programme to personal preferences and needs, whilst retaining the robust structure of the course framework.

Availability of resources does not obviate the need for teacher direction or learning management. The extent to which learners can be trained and tutored to understand their own learning is a concern among teachers and others. The richness of resources has led institutions such as the UKOU to offer a service to students of guided web searches to enable them to learn more effectively. One expert interviewed, warns about not invading personal space such as Facebook. For example, of VLEs:

*You can suggest resources they can use, they look at them quickly and then go and find their own **unless** the resources are really useful for the task they're asked to do.'*

Social networking: 'The concept of social networking and informal learning communities is ok, but they shouldn't be mixed up with social life.

A number of international experts in the field were interviewed (See Annexe III) and their views on the issue of personalisation of learning are summarised as:

1. The roles of learners and teachers have changed as a result of the possibility of learners being able to communicate directly with speakers of the target language in the target culture.
2. It is not possible to transfer existing course materials directly from books to an online environment.
3. While ICT and new media can, and do, have a positive impact on language learning and teaching, there are limitations to this in terms of the attitudes of both learners and teachers towards the change in pedagogy necessary to achieve the optimum outcomes.

4. For formal learning purposes, ICT and new media use allows a greater degree of *personalisation of learning*.
5. It is realistic to use everyday technologies to support language learning *as long as* they:
 - a. are seen as a normal part of life
 - b. do not encroach on learners' personal and private spaces and use of tools (e.g. Facebook, mobile phones) should not be hijacked by educators).
6. Educators should be sensitive to the cost to end users of employing their personal mobile devices for educational purposes.

Note: *This is a synopsis of the full summary – see Annexe III for full report*

Overall, learners enjoy being able to take charge of their learning and to have some control over the choices they make. They seem to try out different things in the target language when used within this structure – and possibly even become more adventurous learners.

They need to feel that what they are doing is useful – they have limited time and need to employ it to add value to their skills, employability and life chances. This same prerogative is reported from a national organiser of language training for business in the UK:

Considerations of career development and practical considerations of time and cost and personal investment are paramount and more important than any notion of 'progress' in the experience of JC. Many are aware of and use the BBC languages content but would want to go beyond this and perhaps get on to the languages ladder. They seem uncertain about what the notion of 'progress' might mean, but would seek small sized modules e.g. six hours of online tuition combined with around two hours of face to face.

See Table 12 below for a synopsis of respondent views about modes of learning.

Table 12: Motivations to learn a language: modes of learning

PROFESSIONAL / CAREER DEVELOPMENT	Anything in which language use is varied enough, and there is motivation to use will maintain and improve language use. Live, direct speech situations in interesting circumstances are the best way to learn, in my experience
USE PROMPTED BY ACADEMIC PURPOSES	Language learning website links acquired through a university course; language learning forums and online dictionaries, googling and using electronic online corpora of English to check idiomatic and other expressions; reading professional online publications regarding linguistics and English in general.
NATURE OF THE EXPERIENCE	I have learned by practice. I have learned computers and other modern technologies by myself. When I was at university these technologies had just appeared.

If higher value for learners as well as recognition and mutual benefits are to be achieved, then some framework providing individuals with the ability to structure their learning needs to be assured. The management of resources and their application should be made available within a structure with defined outcomes and targets and realistic goals for learners.

The interest in personal learning environments PLEs is relatively recent. Interest is motivated by the increasing understanding of learning as being lifelong and diverse, a personal process that exceeds the borders of individual courses and learning providers. The strength of the PLE concept is that it brings together learning that takes place in a range of contexts: at home, in the workplace, within formal learning programmes or through personal interest that occurs over a lifetime.

Created and developed by learners themselves, PLEs increase control over learning processes and promote self-direction and self-learning, thus helping to establish personal educational goals. PLEs are a clear move away from VLE's that are mostly institution-based platforms that offer only limited individual learning support and a more or less fixed structure.

Making use of social media tools and applications, PLEs merge the boundaries of informal and formal learning. Web 2.0 tools, such as wikis, blogs and social bookmarking, they are often used by students in their spare time, but the potential of the tools is seldom put into use for language learning purposes. Such applications hold great potential for language learning, as they respect its interactive nature, open the classroom to the global Internet community, enable the creation and sharing of content, and support meaningful communication and knowledge building. Although PLEs are personal *and* private in that they are created to comply with individual goals and preferences, they do not exist as isolated spaces but connect to form a growing learning ecology that includes both private and social space.

The combination of evolving personal and social spaces within formal education evokes questions concerning the relationship between private and institutional space, and the role of the teacher/tutor. Increased learner autonomy and self-direction call for change in pedagogical practices – rather than an application, PLEs present a new approach to the use of learning technologies.

In the context of language learning, the PLE approach provides some solutions to many of the challenges long recognised by language educators and learners: public/group interaction and collaboration, on one hand, and the need for a personalised approach that respects the needs of individual learners on the other.

Mobile technologies and language learning

The use of mobile devices is a growing phenomenon. Once exclusively used by younger generations, they are now a part of everyday life across all age groups. They are perceived as bringing easy, cheap and immediate access regardless of location and, as such, simultaneously address a number of barriers to language learning. Potentially they can make information and support available instantly and in situ.

How they are being used and why they are so popular are well understood by commercial providers in the communications business, but what further uses individuals would be prepared to employ them for is far less well understood. The use of mobile technologies is a route to learning that is being actively and avidly pursued by educators, the telecommunications industry and broadcasters; all have much to gain from their successful exploitation.

In relation to language learning, evidence of use and research based on the use of mobile technologies tends to emanate from small scale projects and informal sources. Such

beginnings are indicative of trends and behaviours that are recognisable with the use of mobile technologies in other domains.

Use of mobiles for language learning: Evidence from research

According to an expert informant²¹ and based on specific areas of research among masters-level students, trends are identifiable. The research aims to identify the extent to which mobile technologies might grow and develop to foster new language learning. Although the group under investigation in the research project is not representative and is highly self-selecting, it presents a cohort of likely users who may provide indicators of future growth areas. It comprises a range of individuals including leaders and innovators in the use of learning and could therefore be described as a group who might be indicative of some future movement in the area of learning among a wider population. Further research, however, is needed to establish any transferability of experience.

Whilst larger-scale research among this group is required for any more precise conclusions to be drawn, initial messages reflect general views from within the present study. The reported use is mainly to *supplement* learning and add value to other, existing strands of pedagogic resources. Initial indications are that attitudes are positive and that use of mobile technologies is growing.

Of concern, however, is the apparently general lack of interest in integrating pedagogical development to accompany access to new ways of learning, such as mobile technologies. The case study from the Netherlands which exploits mobile technologies openly admits to having little pedagogical value beyond bringing language use into the domain of 'fun' and inspiring further study. Clearly defined performance indicators are required to define and evaluate success. In this instance 'success' is high in reaching general users and also in raising awareness of the advantage of even such limited language knowledge. Professionals however have other concerns, comments from Spain, from the President of EuroCALL echo views from other experts:

It seems that currently in Spain ICT and new media for language learning tend to reproduce traditional teaching/learning methods and techniques. The need to change this situation is clear. Resources will have to allow for a more flexible learning.

There is an agreement by most interviewees that access to ICT and new media will have to be ubiquitous and done through mobile devices. Educational materials will have a better quality and will be 'intelligent', that is, will be able to adapt to the needs shown by

²¹ Kukulska-Hulme, A. & Pettit, J. (2006) Practitioners as innovators: emergent practice in personal mobile teaching, learning, work and leisure. Paper presented at the Mlearn 2006 Conference: Mobile Learning - Across Generations and Cultures, Banff, Canada, 22-25 October 2006.

Pettit, J. & Kukulska-Hulme, A. (2009, forthcoming) Mobile 2.0: Crossing the border into formal learning? In: Mark J. W. Lee and Catherine McLoughlin (eds) Web 2.0-based E-Learning: Applying Social Informatics for Tertiary Teaching. IGI Global.

Pettit, J. & Kukulska-Hulme, A. (2007) Going with the Grain: Mobile Devices in Practice. *Australasian Journal of Educational Technology* (AJET), 23 (1), pp. 17-33. Available online: <http://www.ascilite.org.au/ajet/ajet23/ajet23.html>

the student at all times, without taking into consideration the time or the device used to access the contents.

The view that content will have to be adapted to the different formats is taken up by another interviewee:

Language learning programs will be in all terminals (telephones, video consoles, etc.): "If people use them for listening to music, watching videos, sending messages..., I don't see why they would not use them for learning languages.

As a global phenomenon, the use of mobile technologies for language learning is growing. The high percentage of mobile devices among the Finnish population, as elsewhere is a factor that has affected the ways in which information is made available for both formal and informal learning purposes. Mobile learning has been a shared research interest in both companies as well as the learning research community.

Another internationally recognised specialist is looking into how such use can be extended within new exploitation of the mobility of learners as well as their devices in addition to supplementing and enriching formal learning. She suggests that course-based delivery – where the formal teaching programme provides the structure - can be via a variety of modes, in different places and with links, as appropriate, between them. For instance, text messaging may be used to indicate a new online resource and provide a link to that resource, or deeper learning may be embedded in a different environment.

Changing locations can be an issue for learners, and flexibility across mobile and more static environments is one consideration. Another is the location as the driver whereby a group of learners may come together because of a learning location such as a museum or art gallery. In this instance, the learning adds value to the offering from the venue, the individuals are present because of the venue and what it offers and they may form a formal or informal learning group linked by mutual actions and a common purpose in their learning.

Any such programme of learning is developed from a rich range of resources. The individual is not an 'expert' learner, so that a facilitator, tutor or expert guide is needed to work alongside the individual in structuring a learning programme. In a time-poor world, regardless of learning motivation, individuals increasingly seek to make best use of their learning by optimising its value and targeting the content to specific needs.

Such a process will take account not only of content but of learning patterns, lifestyle, individual differences and preferences and patterns of learning overall. Both the content and the scheduling of the learning will be designed to meet individual requirements. Such programmes exist in embryonic form, but are currently not deliverable within an open and generally accessible framework as outlined by this vision.

Overall, the resources to fulfil such a vision are not yet in place. This is mainly because most investment inevitably is in formal courses and content is developed to meet these needs. Mobile technologies are seen as having potential, especially the use of podcasts at present, but the extent to which they will apply to new learning patterns is not clearly established. Experience is at an early stage and progress is being monitored. More and more extensive research is needed to establish the potential, the practical use and the academic advantage of these technologies.

Interesting developments are taking place within broadcasting organisations and telecommunications companies. Examples of each are included in the Case Studies (See Annexe IV). Each is targeting primarily specific, commercial objectives and do not include a pedagogical framework. This underlines the criticism from within the teaching profession, reiterated throughout the study, that technological development is not as yet accompanied by parallel pedagogy designed to sit alongside and integrated into the new learning environments. Where the stimulus for development is promoted by commercial potential to date there is not link with teaching and learning professionals.

The opportunities to link the production / development/commercial stakeholders with specialist teachers are emerging. Stakeholders now recognise the value of each other to each other as initial projects progress.

Stimulating demand: Growing the exploitation among other stakeholders to promote learning

Across the eight sample countries, it is reported that the main motivations for language learning by adults is mainly related either to work or study. One distinct group is young adults who see the learning of languages as an important element for personal and *mainly* professional development. This economically active and ambitious people group study languages in order either to improve their skills (mainly in English), or to learn additional foreign languages (mostly major European languages, but there also seem to be increasingly more 'exotic' preferences by some, such as for Chinese).

In countries such as Germany and the UK there is growing use among older age groups, including retirees, who pursue language learning as a leisure activity, or as an activity motivated by leisure (e.g. for travel, family reasons). This is less evident in other countries.

Resources available via new technologies seem to replace traditional learning modes and harness latent interest to stimulate creativity in learning. In informal language learning contexts, such resources are recognised by learners as well as teachers as a rich source of real-life, interactive and relevant content in the target language. The range and variety available allow the user to tailor searches and content to specific needs in the target language and culture.

For the less independent learner, cultural institutes such as the British Council, the Institut Français, the Goethe Institut, the Instituto Cervantes and the Hellenic American Union all exploit new media for the interested informal language learner and teacher. These institutions hold considerable sway as they have a well established tradition and now provide portals with varied, up-to-date multimedia resources, including Internet TV channels, podcasting, learning games and activities etc. Some are creating imaginative new ways to entice new groups of learners such as the Goethe Institut in London which has created close links with a major London football team and local schools. The project encourages normally reluctant language learners to 'sponsor' a player by communicating in his language. They have plans to extend the successful idea into other places.

At a more formal level, evidence from Spain and Greece indicates that some learners seek a qualification or formal recognition. Where qualifications and recognition hold strong national values the impetus of new national qualifications has had a positive influence. Greece reports that in the last years, the state has become a provider of certification in

foreign language skills and at the same time 'recognising' more certifying bodies from abroad. It should be noted that the 'recognition' of a language certificate by the state is important for the learner. There is a widespread interest in qualifications for employment in public service. Such movements are bolstered by activity from related sectors. Responding to the emergence of certification schemes, publishers often provide textbooks and materials adapted to the specifications of each scheme. The links between formal and informal learning are blurred and again one may lead to the other and may even promote formal or more extended learning when motivation is high.

Elsewhere, the desire for formal qualifications has been extended to include availability via virtual environments. Even in professional fields such as interpreting, the exploitation of online facilities to provide first training and then qualifications which are based on self-directed learning are available. A model in this field has long been in place in Australia where self-testing, training programmes and formal examinations are all available online (NAATI²²). Such learning allows individuals to decide whether their learning is formal or informal and may encourage them to continue with their study and gain formal recognition.

Perceived advantages of foreign language learning using ICT and other new media

Compared to behaviours and patterns in other spheres of life, ICT and new media are less used for language learning than for other purposes. ICT and other new media are mainly used for individual learning in formal or informal contexts. When there is interaction, it is mostly restricted to the teacher and the single learner. Group interaction is rare.

The main advantages of using ICT for language learning were fairly consistently reported by respondents (see discussion on motivation, p. 53). ICT and new media can facilitate language learning to a great extent. Typical feedback from informants in the study includes:

- *ICT facilitates a more complete education. Languages are learned in a more fluid way.*
- *....in order to get an impact on learning, it is necessary to have technical capacity and educational permeability*
- *... (ICT) allows immediate and continuous feedback, which improves motivation to learn.*

As learners integrate their own informal networks into their pattern of formal study, so the boundaries are further blurred - not just theoretically but in practice, for teachers. In the UK major HE providers of informal learning to students report that registration for informal learning by alumni is rising – it seems that the increasingly competitive job market is having an impact on motivations. In the UKOU, it is apparent that the integration of ICT and technologically-focused inputs have become more integrated into structures both formal and informal as students have the expectation that they will be able to integrate ICT into their learning. Its value and benefits are already recognised.

²² The National Accreditation Authority for Translators and Interpreters Ltd (NAATI) is the national standards setting body for the translating and interpreting industry in Australia. It was established in 1977, and is owned by the Commonwealth, State and Territory Governments of Australia.

Gaming as learning tool

Can educators further exploit informal tools to promulgate learning, improve motivation or increase the application of 'social' activities for learning purposes? One possibility is online games. Although not generally seen as a learning tool, gaming as a tool for teaching and learning is gaining recognition.

For many, the relationship between games and learning is tenuous if not irrelevant. However, the perspective of those who develop games on a commercial basis should not be overlooked: they take the intellectual aspects of their games very seriously and offer arguably an undiscovered route for learning exploitation.

One internationally renowned developer, Simon Egenfeldt-Nielsen²³ contends that modern games take as their focus an agenda beyond entertainment. In the main currently focus on politics, news and satire, He adds:

...we can make a game about anything. It is a medium like any other. The main feature is that they are about 'doing' and thereby creating areas of interactivity.

He sees games as a 'learning machine'; users develop mastery by building useful worlds. They build the activity by addressing probabilities using navigational tools by exploiting new skills. Experience changes what users do. This output contrasts, he argues, with the use of a book as a linear medium. Egenfeldt-Nielsen addressed the European Broadcasting Union in 2009 with the aim of persuading broadcast organisations to use their own networks to help to foster learning and build on the power of games.

Egenfeldt-Nielsen argues that:

... today games are out-growing other popular media in importance. The average age of users is increasing and its influence is moving from specialist users – 'nerds' - to wider spheres of influence among older teenagers and families. Games are now being increasingly associated with other forms of media.

He contends that games are an active but as yet under-utilised set of learning tools. Their exploitation can provide active learning opportunities. This echoes a view from a specialist in France where more development is expected:

Regarding language learning through video and serious games we are not in a position to provide any tangible data in the French context. However, we have provided indications in the changing landscape of 3D virtual worlds and video/serious games, assuming that in the near future uses of these technologies will become more concrete in the field of language learning.

Egenfeldt-Nielsen further argues that collaboration brings to education the strict and concise definition of costs and hard-edged market analysis. Development within the highly competitive industry targets specific audiences and a precisely engineered project underpins any commercial gaming ventures.

²³ Simon Egenfeldt-Nielsen is the CEO of Serious Games Interactive that makes games that are more than just entertainment. He has a strong research background. He has studied, researched and worked with computer games for more than 10 years. <http://www.seriousgames.dk>

Promoting growth in language learning: Influence of broadcast and public media

The extent to which broadcast media is explored to promote language learning varied across the eight countries. The differences reflect the size and capacity of individual broadcasters as well as the financial and development potential, tradition and culture in the different countries.

All countries surveyed make use of BBC foreign language broadcasts and online resources. Further development based on this resource is possible and should be explored via research and development projects. Collaborative projects building on current informal use of such assets would create a resource bank of widely available and high quality assets accessible across a wide public.

Other broadcasters also focus on national needs and prescribed needs and ambitions. They seek greater interactivity, and serve a general audience but acknowledge that preferences are for individualised programmes of learning.

The level and depth to which broadcast programmes can be explored to provide deeper learning is determined by a range of factors. Within the UK, the BBC has created and continues to develop its interactive language learning services and enjoys a growing national and international penetration of these resources. The BBC is now focusing language learning and development on its online resources. The investment is considerable and it could be opened up for collaborative opportunities with educational experts as well as with other broadcasters (see summary in Table 14).

At a European level, ambitions are similar – to create greater connectivity and to attract more and younger audiences with and from varied and diverse social backgrounds. Many broadcasters are increasingly using mobile technologies to achieve these aims. Examples are included in the case studies.

Broadcasters as a whole have more commercially-oriented ambitions – to improve their competitive edge in a fiercely competitive market. The outcomes such as the example of mobile learning from the Netherlands (see the case studies for details) demonstrate how practical solutions can be built to provide valuable assets and routes to new audiences.

At present, there is little contact between broadcasters and language learning materials' developers. A collaboration with pedagogical experts would be of benefit in building deeper learning and linking this to learning management beyond the surface information that is the focus of most broadcast-derived material.

Table 14: Broadcast media – influences and opportunity

	VALUE OF ICT IN LANGUAGE LEARNING	CRITICAL SUCCESS FACTORS	SIGNIFICANT CHANGES
Cyprus	Multi-lingual broadcasting Use of sub-titling	Heavy influence from the broadcaster market in Greece	
Finland	Programming varied – promotes learning Informal learning significant Online language learning resources important Learning via TV programmes declining	Increase in online resources / provision Increased use of mobile devices Time and place flexible	Increased expectations of users Increased use of resources <i>in situ</i> Trend to 'create and use with others'
France	Media companies very active Broadcast involve. in mobiles	Impact across French-speaking world	Provision of learning on demand
Germany	TV not considered a main medium for language learning Subtitling rare Deutsche Welle radio promoting the learning of the German language	Broadband provision	Digital TV for learning Deutsche Welle extensive use of ICT and new media for the promotion of learning of German worldwide
Greece	Traditional TV provision declined Daily radio broadcast for Greek language learning still in place Use of subtitling, extensive informal exposure to English Mainly the public sector is investing in TV learning programmes, not private broadcasters	Plans to offer new learning resources	TV language learning programmes abandoned An interest of policy makers in internet-based provision (video on demand)
Hungary	Learning from TV not rated highly Mainly dubbing, not subtitling		More broadcast programmes in local minority languages
Spain	Small broadcasting companies report high demand for resources Increased diversification of offer from broadcasting companies Some perception of confusion in media provision	Learning potential recognised Attract new generations of learners	Collaboration across media Increased adaptability of content / resources

	VALUE OF ICT IN LANGUAGE LEARNING	CRITICAL SUCCESS FACTORS	SIGNIFICANT CHANGES
UK	<p>BBC leading provider world-wide</p> <p>Public remit to support learning programmes nationally</p> <p>Tradition of language learning provision</p> <p>Shift to online / interactive Resources</p> <p>Move to multiple use of resources</p>	<p>Opening up of archive materials</p> <p>Fewer restrictions on collaborative ventures</p> <p>Move towards collaboration in resource development</p>	<p>Sharing of assets / costs</p> <p>High quality archive / assets</p> <p>Identification of European level subjects / treatments</p>

In terms of the promotion and outreach of language learning, the most significant example is the government-supported UKOU/BBC collaboration which has opened up the biggest influence on language learning in the UK and Europe of recent years.

The concept of the UKOU was launched by the UK Government in 1969 to construct a tertiary level educational establishment that delivered via national broadcasting into homes and workplaces. In 1995 it launched its first language learning programmes. Tens of thousands of learners have studied languages with the UKOU and it has opened up markets for learning beyond any original ambitions. Although learning is no longer delivered directly via broadcast media, the University continues to use its collaboration with the BBC to popularise language learning whenever a broadcast opportunity is presented. The UKOU is evidence of how such a managed collaboration can extend the reach to wide audiences via a cost-effective route to learning – public service broadcasting. The UKOU is now the largest provider of language learning in Europe.

Other nations in Europe have ‘occasional’ alliances between government and learning providers, including around language developments, but nothing as enduring or sustained or within a governance framework. Beyond Europe, in Brazil, public broadcasting works alongside selected Universities, they often seek to evolve their loose alliance with public broadcasting into a more formal structure.

The exploitation of television and radio for language learning is more widespread among users than developers. When culture and language content is produced on TV, learners now expect online content in conjunction with the TV programmes. TV programmes can offer a motivating cultural with accompanying learning and training material online.

Broadcasters today support improved interactivity, seeking the ability to allow the user to interrogate, interrupt and question content. This ambition links directly with the moves towards new media exploitation in language learning. The case study from Catalonia²⁴ illustrates the use of media from a broadcaster to achieve such interactivity with intercultural aims and understandings - though originally created for different reasons. It is also an example of how children’s programming can be adapted to work for all ages and interest groups.

²⁴ See Case Studies, Annexe IV.

Quality provision: Teacher development

The scale and depth of the cultural shift for professional educators implied by new ways of learning should not be under-estimated. Changes need professionals to design, deliver and support new modes of learning. Professionals include existing experienced teachers as well as new recruits.

The more experienced practitioners interviewed often remark that the pedagogy integrated into new media-related learning resources is old-fashioned and not reflective of current teaching methodologies. They recognise that for full value to be gained from the resources and technologies that they must operate within the recognised best pedagogical practice. Technology development runs ahead of teaching implementation and all too often leaves it behind or abandons pedagogical underpinning altogether.

The case study from Dutch TV elaborates one such instance.²⁵ The comments from teachers, who often remain justifiably doubtful as to the value of pedagogic advantages of mobile and other technologies, whilst valid, contribute to a climate of negativity, building barriers to all aspects of technology-based learning rather than fostering a more critically constructive approach. For example:

Although there is possibility to download some learning materials as podcast and listen offline, I have never heard that anybody could use any mobile device for learning.

Software and programs do not always follow an instructional design. Sometimes developers pay more attention to the technological aspects of the resources than to the psychopedagogical aspects of language learning with such resources.

Developers often use the same approach to multimedia materials and ICT as in the traditional teaching. The materials developed are then used in the traditional model. Instituto Cervantes has been trying to convince developers of the need to use a different approach.

Development of multicultural contents is limited.

The social expectation is so high, that users sometimes get disappointed with the technological resources. Learners tend to need a close follow up, and they abandon the program if they don't have it.

Exploration via the online survey, selected interviews and wide-ranging sources of research data all point to the fact that whilst the trend towards self-directed learning, increased learner control and user influence over learning content is an accepted element of learning programmes, that the role of the 'teacher' remains unclear and harbours fear among some that the teacher may become redundant.

According to an interviewee from the Institute of Training and On-line Resources for Teachers of the Spanish Ministry of Education, the biggest challenges to wider use of ICT in language learning are:

- training and support while teachers use ICT and new media in the classroom

²⁵ See Case Studies, Annexe IV.

- access to materials of high pedagogical quality
- access to new technologies everywhere and at all times

These views are typical of many interviewees:

I'm a teacher who has been dealing with languages for about 40 years, and I'm more and more sceptical about the reachable level of language knowledge. I can sum up my experiences as follows: To reach a mother tongue level of knowledge is just an illusion of the inexperienced. Without reaching this level you are always in disadvantage in communication with native speakers. Technologies may, of course, help in language learning but using them more and more is not the main thing, as they can substitute neither the mental effort in learning, nor the necessity of daily practice of using the language.

There is scepticism about using new technologies among those who are aware of their potential; this is possibly born of a fear or apprehension that the use of ICT and new media may threaten their position, professionalism and especially their 'control' of their teaching. More in-depth analysis as to how best to meet teacher needs is required.

As with the learners, training and development of teachers and supporting them into what are essentially new roles where the balance of control and feedback between them and their learners is different, where peer to peer communication is the norm and where the tutor/facilitator is operating in an equal (and some would argue unforgiving) open space, all contribute to creating serious unease for many professional teachers.

The focus among responses from different areas of interest in professional training or updating is on access and training, but rarely if ever on the affective or motivational factors - which are so prevalent among areas of concern amongst teachers and reflected in their feedback responses. Current approaches to training, where provided, assume widespread and easily accessible training programmes which are readily followed up and implemented. Teachers need support and guidance, and arguably they should be given the same opportunities and treated with similar concern as are their learners.

Embedding change among professionals: The big challenge?

Everyday and regular use overcomes many of the barriers to exploiting technology. The challenge is to introduce methodologies and curriculum designs in activities and materials that can be used in everyday contexts to develop a familiarity among a wider constituency. Such increased use will also serve to improve perceived values and benefits by professionals.

Teacher training should take account of the different needs of initial and in-service teacher training. One of the major challenges to professionals is the constant evolution of technology and software applications. For some teachers, this situation can result in a concern which is that they are always 'behind the times', especially in comparison to their students resulting in a subsequent diminution of self-confidence.

This issue needs to be addressed with the provision of continual updating courses that are regular and systematically provided. Some issues mentioned in the interviews were: research in the classroom, implementation of new technologies, use of platforms, development of

materials, etc. The following scenario, reported from Spain is not untypical of the situation in which many institutions find themselves:

Special attention should be given to the training of trainers and the persons responsible for multimedia technologies in the learning centres. Usually the person responsible for multimedia resources in the centres are teachers with the special assignment of keeping up records of use by teachers, ordering the purchase of materials and maintenance.

However, they are expected by their colleagues, and even by the administrators, to provide advice and support for using technologies. These persons do not have specific training for such a task, but they try to cover the need. They are expected not just to manage the administrative aspects of the use of ICT, but also to train teachers.

Although this study focuses on informal learning, the need to follow through with learning and the integration of formal and informal learning and the quality of the professional input from the teachers is key to moving forward in all areas of learning. ICT and new media use is becoming an essential part of continuous teacher training and development, but it must have a more prominent role in the initial training of language teachers.

An instance of interesting practice from Finland demonstrates the potential of reaching teachers when useful and practical support is on offer: the *Peda.net* collection of web tools is a subscription-based service that emerged out of a small research and development project at the Institute for Educational Research, University of Jyväskylä.²⁶

An interviewee from the UK who has national responsibility for teacher education, in the school sector gives some thoughtful insights:

It is hard to get change embedded in schools. Teachers work under increasing pressure. In order to make any changes, there needs to be 'scaffolding' / structure enabling initiatives to be taken easily and simply and with the least disruption to working practices.

The vision for change is desirable but in itself is not enough; this alone will not challenge current practice nor induce changes. Intermediate steps are needed including clear facilities to buy out time, to offer support and resources to practitioners and minimise their required input to get something moving. Procedures should be greatly simplified or supported if more engagement is to be attained.

Changes should be rooted in CPD and professional training and recognised achievement – to create incentives, entice the best teachers and recognise the importance of the effort required.

Such structures should be negotiated on a pan-European level in order to encourage greater collaboration and offer incentives in different countries with immediate benefits for professionals as well as achieving the desired changes.

²⁶ See Case Studies, Annexe IV, for more details.

Teachers as learners

The study has brought to light the potential confusion of the proliferation of resources available to learners, and the need for management systems to help them to identify appropriate elements and manage learning effectively. The same issues apply but, arguably, more urgently to teachers. In order to reach teachers and those working on the ground within social groups and other areas of influence, teachers themselves must advise and inform communication routes.

Teachers and professional networks could highlight areas of much needed action. The widely recognised concerns among teachers need to be addressed urgently. This comment from France demonstrates this point:

.....the face to face factor in language learning is crucial, as is demonstrated through the importance given to tutoring and support and human interaction facilitated by computers. Among all ICT-based approaches for language learning, face-to-face learning environments and blended learning are given priority.

Given the high importance and central role of the teacher in all environments, it is all the more surprising that training and development is not at the forefront of investment, priorities and concerns. Feedback in relation to training and development for teachers and all involved in supporting learning pervade the study, with comments relating to a lack of national consistency, lack of collaboration across sectors and departments and of a general lack of skills recognition within the profession.

Meanwhile, learners familiarize themselves with new skills from a young age and ever more highly adept young people are moving into education and society, causing a growing experience gap with the teachers who should be guiding them. Teachers are increasingly distanced in terms of their ICT skills from their learners and, more importantly, from the groups whom they should be able to influence to apply their skills to learning and development. This perception may be erroneous as many believe that reality is very different. Learners may be nowhere near as adept with ICT/new media as is assumed. There is research appearing that suggests that it is a misguided view that the 'net generation' is being more technologically skilled than older generations.

Ways forward: Structuring access to good practice and sound examples

It is essential to embed changes in cultural and societal settings and to ensure sustainability by creating a framework of values that are recognized and rewarded in professional terms. A national strategist from the UK reports:

It is hard to get change embedded in schools. Teachers work under increasing pressure. In order to make any changes, there needs to be 'scaffolding' / structure enabling initiatives to be taken easily and simply and with the least disruption to working practices.

The vision for change is desirable but in itself is not enough; this alone will not challenge current practice nor induce changes. Intermediate steps are needed including clear

facilities to buy out time, to offer support and resources to practitioners and minimise their required input to get something moving. Procedures should be greatly simplified or supported if more engagement is to be attained.

The overall aim should be to have a collective voice for languages in order to influence policy and to ensure that messages from language professionals are carried through to the highest levels. These suggested approaches from a nationally-based teacher trainer encapsulate views on stimuli required to better connect with the profession:

- a voice that represents teachers to provide a 'reality check' and help to ensure that actions meet the needs of learners and teachers
- a structure/framework to support effective dissemination, for example through existing networks in member states
- structures to appeal to 'ordinary teachers' who have little time to spare and may lack confidence in changing their classroom practice
- national schemes to support teacher-release to attend training and development courses linked entitlement
- formal recognition through career and professional development
- national initiatives to fund formal development.

Good practice and sound pedagogy is identifiable, but is fragmentary and isolated. This creates problems of access for new practitioners, and new initiatives are vulnerable to cuts in times of economic hardship. Most such initiatives are initiated by teachers and depend on individuals for success. This is a good hands-on link and cost effective. Simplicity of use is the key in this case.

Barriers to change: Learner training

For those not 'born into' the everyday use of ICT and new media, considerable time can be expended in acquiring skills at levels that make their use speedy and economic in terms of time. This may be a generational difference or simply a lack of familiarity with the technologies. This may be due to a lack of confidence.

Attempts at using unfamiliar technologies in language learning bring twin challenges of mastering the technologies and systems and also developing the dexterity needed to use the tools effectively and efficiently. Familiarity of use and experience are major influences in improving the impact of ICT and new media on language learning generally. This is evidenced throughout the study from all areas of the research.

There are conflicting views as to why learners/students do/do not use informal networks and communication technologies to a greater extent for learning purposes. Responses from learners relate to their assessment of usefulness and value of invested time on their part in gaining the necessary competences. According to a specialist in the field, it seems that students do not use blogs/wikis etc is mainly related to the activities they're asked to do. If they see no point in using a specific technology to carry out an activity, they tend to resist.

There has to be an advantage in it for them. However where they are used effectively they do bring advantages. An experienced UKOU tutor reports:

Evidence from lower levels of language knowledge – more general online courses – shows that whilst students adapt to basic uses and skills they are less willing to explore e.g. blogs and Wikis but gradually more familiarity with Skype etc. on a social basis is helping a lot....such experience from social use will gradually pervade more deeply and encourage a more varied use of the IT in learning to improve and better exploit its capability.

As experience and confidence in use are inherent to promoting greater use of ICT in learning, it is logical that all learning should be accompanied by support packages and integrated help available to those who want to make use of it.

Another experienced tutor reports that among those studying online courses offered globally by the UKOU even experienced students favour practice activities. They do not focus on these as a need for rehearsal, rather, to try out new pedagogies. There is no firm evidence to support this view, and, by contrast, there are publications based on student feedback that focuses on 'rehearsal'. All of which points to the need to find out more and better understand learner behaviours. Any such support package/training/induction should include aspects of development of self-esteem and self-confidence.

There is evidence from a number of interviewees within the context of informal learning at Higher Education (HE) level in the UK and elsewhere, that learners from disciplines where ICT is used widely are more inclined to exploit ICT for language learning. Where language learning is an option in management or technology courses for example, use and take up are greater. Learners report that they also work more successfully because they come to the learning experience with a pre-developed self-confidence. For the rest, the technology can remain a barrier as this comment from Finland encapsulates:

Many approach the new teaching saying they do not want to be 'IT experts'. Those who do take it on tend to lack confidence and need a good deal of support – even those who return to this mode of study with some experience. The combination of acknowledged barriers to language learning related to issues of personal identity and self esteem - where a lack of skills and confidence threaten progress- are further emphasised when combined with a lack of confidence and self esteem in IT skills as well.

Feedback from learners also suggests that whilst early recruits to these learning environments tended to comprise a self-selecting group of relatively IT literate learners, users are now acquiring ICT skills as they move to this type of learning.

Where learning involves the management of resources and the selection of appropriate support material, again some help or organisational tools are generally welcomed. A number of specialists reported that the sheer wealth of material and the growing bank of resources can be daunting, particularly for new learners. The availability of some sort of management structure that would be freely accessible would be welcome.

The picture that emerges is one of variability in the use and availability of networks, characterised by variable service availability, self-taught skills and intuitive use that combine to create a challenging climate within which to instigate a shift in use. Inevitably in such conditions, use tends to be personal and shaped to specific individual interests and passions.

The high levels of activity, and a growing use of mobile technologies for communicating, are geared towards personal and social interactions.

It is as yet not clear how to move the activity to a more serious use to make way for learning.

Currently little evidence is available of in-roads into these territories. Research and activities to attempt some exploitation of these 'privatised' communications would be valuable. The possible exploitation of virtual territories for learning use is complex and considerable investigative and practical experimentation as well as training is required if progress is to be made.

Another possibly portentous aspect may be the ability and willingness of new markets to harness a more diverse use of these personal areas of use. Experimentation among new territories such as emerging economies of the former Eastern Europe, newly emerging countries across the globe and the influence of the major new economies such as India, China and Latin America may well determine the future of Europe and other territories closer to home.

Applying lessons from the past to advantage: The learning experience

Creating optimum learning conditions within the range of new environments does not imply a whole new pedagogy. One frustration for experienced, language teaching professionals has been the lack of knowledge transfer from one domain to another.

Amidst the many changes that are examined in the study, one theme that emerges is that of ensuring that relevant lessons and experience from the past are not lost nor enduring aspects for teaching and learning practice ignored. Whilst the new environments imply specific training for optimal exploitation, they also address many of the affective barriers identified as reasons for non-continuance of learning.

As modes and environments change, they can break down barriers presented in traditional modes of teaching and offer added value when linked to sound pedagogy. PLEs offer opportunities to learners to avoid such pitfalls and, over and above the improved 'comfort' potentially on offer in learning terms, the technologies allow new skills to be developed.

They include the ability to control learning, the manner, speed and pace of new learning. Importantly and arguably the key point is the opportunity for individuals to monitor learning, track progress and identify personal strengths and weaknesses. Technology offers individuals the opportunity to understand themselves and their learning more deeply and meaningfully to enable them to work effectively and efficiently. This in turn allows them to assess the relative value and importance and hence assess the effort required to input to specific aspects of language learning.

However, individuals must be skilled and comfortable at using and adapting technologies so that the focus of their input is on the learning outcomes via exploitation the technologies. This suggests that user training and confidence-building in employing technologies underpins their successful implementation. Teacher training and professional input is vital to this process.

More research is needed into the development of support structures if the full benefit of the new environments for learning is to be exploited, particularly where such structures are not integrated into course building. These challenges could largely be overcome with training. From Finland:

To identify relevant elements and to design effective training modes for these people are among the future challenges. The media potential, learning goals and targets, pedagogical innovations, learner styles, and the learners' life situations should be more systemically taken into account when designing new types of courses.

Corporate perspectives: Challenges and opportunities among employers

Each of the eight countries reported on examples of practice among commercial users of language services. Responses are not always consistent, logical or mutually compatible. Some 'actors' in the unfolding drama of globalisation tend to respond in immediate and pragmatic ways to immediate situations. Others have the chance for longer term planning and reflective responses (see summary in Table 15).

It would be reasonable to assume that globalisation and the changing nature of employment and employability fuelling mobility of labour would prompt language training activity among employers. The study reports that though the impact of changing markets and globalisation are acknowledged it is individuals who seek to improve opportunities and life chances for themselves.

Although the arguments to support training to improve company-wide skills have been made and the value of additional skills are recognised by employers, trainers and others it seems that reactions and responses to increasing globalisation are most evident amongst individuals who increasingly take personal responsibility for their development. This is evidenced in the online study, country reports and within the employer interviews.

Table 15: Corporate perspectives

COUNTRY	CORPORATE RESPONSES	CRITICAL SUCCESS FACTORS	SIGNIFICANT CHANGES
Cyprus	<p>FL necessary in most workplaces</p> <p>English skills very high</p> <p>Language training available in some organisations</p>	<p>Supply mainly from small providers and university labs</p> <p>Little use of ICT and new media</p>	<p>Not very significant</p>
Finland	<p>Online/technology-based learning good for small companies</p> <p>Increases range of languages taught</p> <p>Provides flexibility of place/time</p> <p>Virtual groups = greater efficiency</p>	<p>Improved pedagogical development</p> <p>High costs</p> <p>Profit in print materials</p> <p>Good for updating</p> <p>Supports lesser taught languages</p>	<p>Improved materials design</p> <p>Growing world markets e.g. Asia</p> <p>Smart learning/personal(ised) learning environments (PLEs)</p>
France	<p>2006 IFP study shows:</p> <ul style="list-style-type: none"> 60% Managers not comfortable communicating in a foreign language 25% have no foreign language skills <p>Little sharing of resources</p>	<p>Modular learning allows personalisation</p>	<p>50% of companies seek foreign language skills in recruitment</p> <p>Growing use of mobile technologies</p>
Germany	<p>Good FL skills more and more sought in the labour market</p> <p>Language training often available in larger companies</p> <p>Mainly English</p>	<p>In-service learning supported by many employers</p> <p>A specialised market of suppliers</p> <p>Use of ICT and new media in corporate language training is a matter of private investment – often under-funded</p> <p>A high-cost, high-risk market</p>	<p>Limited but increasing use of ICT and new media in corporate language training</p> <p>Many recent initiatives targeting the informal language learner</p>
Greece	<p>FL considered a very important skill in workplaces</p> <p>FL skills already quite high in many workplaces (mainly English)</p> <p>Language training available only in larger companies, and usually in an individual-based, tailor-made fashion</p>	<p>Supply mainly from small language training providers</p> <p>Little use of ICT and new media in corporate language training</p> <p>Little policy development and national encouragement in this area</p> <p>A high-cost, high-risk market</p>	<p>Reduction in time and money available</p> <p>Extrovert suppliers trying to target the world market</p>

COUNTRY	CORPORATE RESPONSES	CRITICAL SUCCESS FACTORS	SIGNIFICANT CHANGES
Hungary	FL considered a very important skill in workplaces, existing skills still low on average Mainly English and German Language training available in many larger companies	Corporate e-learning solutions often bought from abroad In-country market not big	Increasing use of corporate e-learning, including languages
Spain	Awareness growing that foreign language skills are important for the future Mainly on-site courses High expectations Some larger companies adapt materials to needs	Supply mainly from small companies Mainly stimulated by national initiatives	Needs to be attractive, affordable and accessible Growth (slow) in joint working / Development Learning management systems
UK	Training mainly in large companies Economic downturn had negative effect Mainly blended learning High expectations Increased demand in hotels / hospitality	Mainly small scale providers Development decreasing Sales market very low Mainly personal ambitions / motivations	Simple messages / simple solutions Reduction in time / money available Free trial modules

The expectation among employers remains that any investment on their part in language learning should take place within limited time frames and with maximum effectiveness in line with commercial returns. The main concern is to optimise restricted training budgets. Exemplar comments from Spain typify attitudes to language training across the sample countries:

The company offers ongoing language training for employees. Telefónica has agreements with language institutions for providing on-site English language services to managers, individually or in small groups, although distance learning is becoming more prevalent Language training is offered through multiple devices: web, pda, cellular phone, TV, etc. A platform was created for on-line and blended language training with support of tutors. Due to the international presence of the company, English is required as the second working language after Spanish. Knowledge of languages is valued for hiring and for promotion in the company. Employees demand more on-site support and courses (The Director of Communication of a large company was interviewed for the study (Telefónica).

From Greece:

Most employees have traditionally been entering the workplace with at least an adequate knowledge of English (a common prerequisite for employment). However, older senior executives with little or no skills in English, or younger executives with

specific needs for improvement of certain skills pose a need for the company's investment in language training. These individual cases are normally addressed on an ad-hoc and tailored manner. The teaching is outsourced to language learning companies.

This approach to individual development reported from Greece is typical of messages from all sources in the study:

Overall, young adults form an increasing part of language learners Many realise that their existing skills in English are not adequate for their job or strong enough for the labour market, while knowledge of a second or third foreign language might offer them better chances of employability and a successful career., this generation of learners is investigating other opportunities, with Chinese emerging as a choice, together with Arabic, Turkish, Russian and Japanese.

The case study (See Annexe IV) cited from British Telecom (BT) in the UK describes a leading edge approach to training from within a company renowned for innovative and varied company training schemes. It places increasing responsibilities on individuals to take responsibility for their training and company infrastructure replaces more traditional provision via tutoring or teacher support.

Such major employers are creating their own training solutions. In a recent interview about its new initiative, the Head of Training in BT described their latest training initiative as an in-house interactive network which allows employees to upload training files – audio, video or text and share experience across the company. There is no formal structure or compulsion to train. However they find that the quality and consistency across groups of learners is high. Being user-generated the feedback on value and usefulness is high. Although in its infancy, this programme of in-house, company-generated infrastructure will be part of future scenarios. As yet this does not include language training but the potential is self-evident (see Case Studies in Annexe IV for full report).

Whatever the structures adopted to implement training, that language skills are needed is not denied. The EU Elan project²⁷ reported on many aspects of in-company language training across Europe:

Investment in the development of language skills across the EU would produce economic benefits, with positive impact on SME productivity and export performance. these investments are an essential factor in enabling the EU to compete on the basis of skills and knowledge rather than on the basis of low costs.

These are some of the conclusions of the pan-European survey. Language skills in corporate environments are undoubtedly decisive and in some case can be considered as a key success factor in market penetration. Although the ELAN survey demonstrates the link between language skills and success in business, it does not inform on strategies to develop language skills in corporate settings. The report concludes that European companies, large and small, must develop a coherent language strategy, in which intercultural skills are essential to

²⁷ This study was commissioned by the Directorate General for Education and Culture of the European Commission in December 2005 and undertaken by CILT, the UK National Centre for Languages, in collaboration with an international team of researchers. Its objective was to provide the Commission and decision-takers in Member States with practical information and analysis of the use of language skills by SMEs and the impact on business performance.

obtain the necessary conditions for their sustainability in the global marketplace, however, training practices in language skills are not documented.

Implications of mobility of labour

All countries included in the study have a concern with the mobility of labour and addressing their particular needs in learning terms. The report from Spain, where this issue is a major concern, took this 'hard to reach' group as a key focus. To gauge the applicability of any change in routes to learning and the content of any such resources, specific groups were targeted and their responses provide valuable insights into engagement with such cohorts.

Three interviews were conducted, analysing the use of ICT and new media for the learning and teaching of Spanish by and to the immigrant population: AVE of the *Instituto Cervantes*, *EDUCATUR* for the tourism sector, and *Spanish Red Cross*. These are detailed in the case studies.

At a national level, the Spanish government is confronting the issues via such projects and AVE (Virtual Classroom of Spanish of the *Instituto Cervantes*) is based on virtual teaching that uses TV programmes and interactive digital TV with the support of multimedia materials, books and virtual guides and tutoring. The programme is being widely used around the world. It has been adopted by the Education Departments of the Regional Governments for teaching Spanish to the immigrant population in two modalities, totally on-line and blended where some of the teaching is online and some face-to-face.

Employer attitudes to new training possibilities

Employers use a wide range of training facilities but language training is not considered as a priority. There is a correlation between the provision in education and in business – this may not be coincidental, but the outcome is that areas of business training and technology are predominant.

Attitudes among corporate bodies contrast with those of individuals in that there is little evidence of taking on responsibility to improve and extend availability and less enthusiasm to fund such opportunities. Companies admit that technology use in the employer context opens up flexible training solutions and cost efficiency in the implementation of training and access to updated material with flexibility and better availability. While employers recognise advantages in what ICT can offer to language training, they do not always seem to do so as reported from Spain:

- the impact of ICT can be seen in tools, the way languages are learnt and information mediated.
- interaction without physical face-to-face presence is an important aspect in a large company
- communication is mainly mediated through technologies, but this is not reflected in language learning and teaching practices.
- technology is not an integral part of language education.

Faced with this dilemma, a number of underlying factors impact upon the ability to shift corporate cultural and training positions. The biggest challenges faced by the interviewed companies in making greater use of ICT and new media in language learning and training practices include the following:

- making the conceptual change to abandon the classical teaching model and develop new methodologies that are centred in the students, satisfy their needs for learning and adapted to their life style
- teacher training for making this change, but also on-going training for adapting to the new technologies and media
- continuous adaptations of pedagogical models to new on-line services
- planning of the development and use of resources
- free or low-cost resources
- availability of hardware and connectivity

The response from training providers

Providers need some certainty of their markets to justify investment in tailored training solutions. Typically, demand may not be big enough to create a viable investment base, or the limited size of a specialised customer base may not allow for cost-effective prices which would encourage more buyers. However, the specific areas of need tend mainly to be embedded among small companies allied to narrow demands with only limited investment potential. This does not create a viable economic model for providers. As a result, the needs of employees are all too often left unmet.

The issue for providers is how to adapt their industry to a volume of business based on an aggregate of many different and diverse demands for training. The move tends to be towards the private and self-funded providers and is to a great extent international / global rather than nationally bound. Such a global approach, however, allows for greater flexibility across various markets.

Such risks are shared both across companies wishing to invest in training and the training providers: from Greece it was reported:

In many cases it was observed that the chance of success was greater for bigger organisations which are able to fund investment in this area through other profitable activities (e.g. publishing, conventional language teaching) for as long as it is needs to mature and generate income and profits on its own. Many small enterprises who entered this market during the digital market boom of the 1990s or early 2000s did not manage to survive.

Similar patterns of developing markets are reported from content providers / publishing houses and media companies. The views from Spain, for example, were typical of messages from all countries:

Informants from the small companies that provide services via Internet consider that there is a demand for multimedia resources for supporting on-line self-learning and semi-distance learning. However, the Instituto Cervantes and a large publishing house stated that the impact of ICT and new media has not been as big as it was expected. These two companies indicate that the most important impact has been on supporting materials for on-site learning.

The impact of the use of ICT and new media on economic activity connected with language learning reported by the companies interviewed refers to two main events: 1) The emerging industry devoted to developing contents that are adapted to the new channels, and 2) the adaptation of the companies that were already in the market and have to diversify their offer of products and adapt them to the new needs of the clients.

The biggest challenges faced by the companies in making greater use of ICT and new media in language teaching practices are:

- making the conceptual change to abandon a traditional, teacher-led, face-to-face teaching model and develop new methodologies that are centred on the learner, satisfy their needs for learning and adapt to their lifestyles
- continuous training and development of employees to adapt to the new technologies and media
- continuing adaptations of pedagogic models to new on-line services
- planning of the development and use of resources
- free or low-cost resources
- availability of hardware and connectivity

Economic perspectives: Adapting to market demands

Content developers and providers are aware that the main change reported as a result of the use of ICT in learning and teaching languages refers to the role of the teacher as a mediator and a facilitator, who accompanies students who have specific learning objectives and want to learn the language with the maximum efficacy. Materials adapted to this new role must be developed.

‘The perception is that the teacher has abandoned the role of ‘orchestra conductor’, and is now someone who accompanies and guides in the path to learning’. (Lingus TV)²⁸

In the UK, it seems that the market for software for use for self-study and guided study has all but collapsed, as a leading software provider noted:

Sales of CALL software are completely dead. The HE sector stopped buying a long time ago, and secondary schools stopped buying when languages ceased to be compulsory

²⁸ See Case Studies, Annexe IV, for full account.

beyond KS3 [Key Stage 3], although there still appears to be some demand from the private educational sector. ... There are three main reasons for this trend:

- i. Educational institutions are strapped for cash.
- ii. The Web is full of free resources (although a lot of them are not very good).
- iii. Do-it-yourself authoring, using generic tools (Word, PowerPoint, etc), MFL-specific tools, and Web 2.0 tools, is very much in vogue - and saves money (but not time).

Overall there is a variety of language learning software available but as one interviewee remarks, typically, within his own language teaching context :

We have very good software in five foreign languages, but unfortunately I am the only one who uses this tool.

Underlying all the perspectives from the commercial market are considerations of development costs, market-drivers and, most importantly, the profit motive.

Distinguishing and defining groups of learners

In order to address needs effectively, a clear and targeted approach must be adopted. The research has highlighted how differently motivated individuals both come to the resources and then use them. The design and delivery must relate to and reflect these differences.

First, one must distinguish between two key user groups:

- 'Learners' - those committed and enthused by the learning of a language and who, it seems from the online survey feedback are motivated to master the technologies and seek new ways to improve their learning.
- 'Users' - those who use many different forms of ICT, are adept and skilled in its use but, in the main, are not looking to 'learn', they simply want to fulfil some often immediate, personal need. This group must be specifically addressed and their motivations should determine the structure and content of any resource.

What the *Teleac* model²⁹ demonstrates is that the provision of such a model that meets an essentially social need, can deliver effective new routes to learning among groups who would not describe themselves as 'learners' but who are susceptible to the learning process when it delivers what they want.

This same perspective is reported from Finland:

In sum, a vast majority of respondents considered using ICT for language learning important and interesting. However, there was a great difference in the potential and possible uses of ICT, perhaps partly due to individual differences, preferences and

²⁹ See Case Studies, Annexe IV.

learning styles, but also depending on the experiences and practice around technologies. The main assets of using ICT were perceived to be

- *enabling communication with native speakers*
- *facilitating access to knowledge, dictionaries and other learning resources*
- *providing a possibility of being exposed to a foreign language*
- *versatility, flexibility, and time-independence*

In addition, some do emphasise ICT as a motivational factor, though many say that the motivation comes from learning, regardless of the medium, which is also reflected in the online survey.

Rising awareness of benefits of exploiting ICT among developers

ICT and new media in language learning are stimulating the development of networks and collaboration among institutions. A significant number of resources are developed by groups of national and international companies that collaborate in joint projects.

In Spain the impact of ICT and new media in language learning is similar to their impact in other developed countries. According to the President of EuroCALL, it has:

- instigated new resources in electronic format, in CD-Rom as well as through the Internet, so learners and teachers can choose between the formats or methods that are most convenient to them or more appropriate for a specific learning situation.
- enabled students to work outside formal teaching by not limiting their learning to the classroom context and allowed space-time frontiers to be broken
- created more possibilities for communicating, in real time as well as in deferred time or through recording, with native speakers of the target language.
- created an evolution in teaching methods and the development of new teaching perspectives

For others, the role and relation between language learning and broadcast media is emphasised; in Greece, for instance:

Up to about ten years ago, broadcast media used to be one of the most recognisable spaces of informal (or rather non-formal) language learning, thanks mainly to the language learning series of the 'Educational Television' (a Ministry of Education initiative broadcast for many years by ERT, the national broadcaster), as well as some Greek language lessons broadcast over short and medium wave radio to the Greek Diaspora. The series broadcast on TV were accompanied by printed materials linked via in the TV programme weekly magazine. The broadcasting of the language learning series was discontinued five years ago. There are plans for the introduction of a more flexible scheme of video-on-demand to replace traditional broadcasts. Greek

international radio broadcasts daily Greek language lessons, which are also available as audio files and accompanied by texts and activities on the broadcaster's website.

and in Finland:

Online language courses have are a central part of the language services that Finnish television provides. The amount of more traditional ways to offer contents for formal language learning (television programmes) has been reduced significantly. Offering online learning environments and contents has given the role of language material in television content in an important position.

They enable learners to use the learning materials at their own pace and give easy access to video and audio material, the main area of competence for the channel, learning becomes more effective, it's more independent.

Although language learning in formal contexts continues to be considered as indispensable, there is a growing interest occur in learning languages (maintenance, improvement, perfection of language competences or simple documentation) via more informal routes.

Addressing issues of development costs

Developing new technologies and materials is very expensive, and many schools and organisations are not ready to pay the price that would be reasonable from the publisher's point of view. In terms of meeting needs and addressing the requirements of a fragmented and diverse community of users, it is the only way forward. This comment from the report from Spain is typical of a widely-reported dilemma for smaller developers and less popular languages:

A robust economic and business requires careful planning, efficient processes from the partners. In many markets, the profit is made with print materials, as the most of the money available for learning materials is spent on books. On the other hand, globalisation and multiple international markets across increase the demand for developing language skills and cultural competence. Business can be expanded to new markets. The use of learning technologies is gradually becoming mainstream, which is important for a small and specialised business.

The same report continues:

...e-learning is time and cost-efficient, and materials can be easily updated. The economic impact is most tangible when considering education in rare, smaller languages. The development of the Asian market increases the need for language and cultural education. In a multinational organisation the role of the English language is significant. Solutions that make use of technologies, are smarter, more interesting and motivating will be available.

Elements within proposed structural shifts have implications for actions at different levels. Some require innovations in development, all imply international collaboration and many would benefit from partnerships with as yet unexplored areas of collaboration.

The exploitation of widely available broadcast assets, of drawing viewing audiences through to learning via an online pathway, comprising enticing, short, attractive content works. This could be adapted and applied more widely with a role for employers to ensure that demand is allied direct and employable usable needs, to broadcasting potential, including user-generated content, to ensure that it is available via public networks. Mobile developments related to language learning are dependent on collaboration linked to commercially-based initiatives and provide a fresh approach to their exploitation.

Within the broadcasting arena, Nissen argues that a normal 'supply and demand' perspective, a market-driven paradigm, is acceptable. However, he argues that a response cannot be justified solely in economic terms. The tension he defines leads to other fundamental questions: should access be open, affordable and available to all on an equal basis? If so how can funding regimes accommodate and align with cost structures? The answer depends on whether one considers the sum of individual preferences of a majority of individual consumers in an international market as being congruent with the needs of the individual societies in the same territory.

This fundamental tension, encapsulates the dilemma for language learners as well. Inevitably developers in the main are attracted by the major, widely spoken languages. As demand moves towards a richer range of language needs and personally defined learning contexts and boundaries, the same tensions are recognisable.

In policy and strategy terms, the impact depends to a large extent on how collective public responsibility versus the individual's freedom of choice are defined and played out. From this the question of how users and individual rights are prioritised turn on whether they are treated as citizens in society, or consumers in a market. The response will determine the ability truly 'impact' and open new learning to the wider public regardless of location, economic circumstances or personal needs.

Personal costs to users

Closely allied to considerations of new skills development are costs to individuals in terms of time and money. In an increasingly time-poor society, both have equal prominence.

When considering opportunities to expand and extend provision, a number of practical considerations are often overlooked. These include the cost of using equipment or services, the variability of access to various services on a geographical basis, or a personal access basis where installation of equipment is involved. Evidence from the online survey demonstrates that freely available resources do apply a role in attracting new users.

Cost, although recognised as a challenge, is not considered particularly crucial by some end users, since 'there is free software and cheap solutions available'. A specific example of the influence of such learning is *LiveMocha*. It is detailed in the Case Studies (See Annexe IV) It is a commercial venture based in the north west of the US, which claims to be '...the first major language learning tool based on social networking technologies.' (Wikipedia 2009). The company, founded in 2007, uses the 'language exchange' (tandem) model, putting learners in touch with native speakers of their target language via Web 2.0 technologies. The homepage announces:

Learn languages online at your own pace with fun language lessons

Connect with foreign language partners around the world

The fact that all 'lessons' are free (the site is supported by advertisers) is emphasised:

Livemocha is the world's largest online community for language learners, with free lessons and a global community to help you learn a new language.

The financing of initiatives is discussed as a barrier and is an increasingly important consideration as free services are used more widely and more ubiquitously. Users tend to distinguish use as well as applications of devices or equipment or services along a divide of personal and non-personal use.

Personalisation of access requires considerable planning – in everyday terms even identifying bookmarks or favourites can be time consuming, for learning purpose deeper consideration of applicable reference points is required and so the application of considerable time may be involved.

Any large scale development must take account of the variability in the quality of the infrastructure such as cabling or satellite connections leading to a paucity of integrated networking in many areas. This plays a large part in deterring any whole-sale move towards using new communication channels and environments and is de-motivating in terms of the skills acquisition required to work effectively.

There is some support in the questionnaire responses to the experts' suggestion that educators should be sensitive to the cost to end users of employing ICT and new media, though while the experts focus on the cost of using personal mobile devices, questionnaire responses covered a much wider range of costs, from free resources to applications that support free international communication:

- *Everything's so expensive these days and learning a new language should be accessible to everybody, not just those who can afford it.*
- *The fact that you can speak online via skype freely has helped me in my language skills.*
- *... free online courses are invaluable. I have just bought Collins Language Revolution (Italian) that has a free support website. This is very useful as the website has additional exercises.*

However, learners would be prepared to pay for formal courses, with some provisos, 'if you are following a course I think you should pay however. It would also be good if some of the background reading material was free' says a typical student.

Whether intended for personal or professional application, motivation to learn for career purposes is high among all of those surveyed. Both individuals and groups have specific and clear ambitions. These are not static: needs and circumstances change constantly and ambitions must be fashioned accordingly.

In the UK, the reduction of availability of evening classes and adult learning opportunities and especially based on previously widely and freely available BBC language programmes has dramatically affected take up and engagement in learning. The powerful combination of economically priced (often free of charge) classes linked to broadcast programmes motivated

huge numbers to take part in informal learning. The move to cost effective teaching provision (pushing up process), a decision by the BBC not to broadcast language programmes on mainstream channels and funding for adult education based on qualifications and formal results has had a catastrophic effect on this once vibrant market. This comment from Finland evidences the positive effect of a determined and positive move to assure wide access to learning:

Adult learning is an important part of the language learning continuum in Finland. Many companies finance language education for the employees, but people also study languages quite voluntarily and without any work-related reasons. Almost every municipality offers a wide variety of courses for free for any inhabitant in that municipality. In a current European study (the European Adult Education Survey EU-AES, 2005-2008), the Finns were among the most eager people to continue studying even after their formal education. According to the study results, persons aged 25 to 64 who live in the Nordic countries (Finland, Norway, Sweden) participated in formal or non-formal education and training more often than other persons living in Europe. The participation rate exceeded 50 per cent in Finland. Education and training that does not lead to a qualification (non-formal education and training) is significantly more common among persons aged 25 to 64 living in the Nordic countries than those living elsewhere in Europe.

Calculated per person, the highest number of hours of instruction was provided in the Nordic countries. Finns pay the least for their education and training. Persons aged 25 to 64 living in Finland and participating in education and training paid on average less than EUR 300 for their education and training during the survey year. Formal education and training, in particular, was inexpensive for participants in Finland. In this form of education and training, the average share paid for was just EUR 150 per participant in Finland (in comparison: it was only in Sweden and Latvia that the amount remained just under EUR 400).

This clear message of the positive effect of cost and availability on actual practice must be a guiding force in configuring priorities for the future.

Working effectively to exploit expertise and experience

The role of the specialists, teachers, developers and learners can be used to provide organisational structure and a logical, pedagogic framework to new learning. Work is being carried out to consider different prime drivers within any such system.

By applying such expertise and focusing development on a key driver, the design and structure are carefully integrated to suit demands. Such a process will take account not only of content but of learning patterns, lifestyle, individual differences and preferences and patterns of learning overall. Both the content and the scheduling of the learning will be designed to meet individual requirements.

In addition to teaching professionals, enterprising and forward-looking groups of practitioners in a number of fields and walks of life are alert to the benefits and added values of engaging with languages and cultural issues. This needs to be supported via fostering their interest and enthusiasm in understanding other cultures and languages.

A structure to enable experienced and influential stakeholders to come together to learn from each other and build on existing working models would enable a better exchange and genuine sharing of expertise. Such a cross-fertilisation of experience and existing models would inform the development of richer and more diversely applicable content. The joint harnessing of sources also reflects user behaviours and allows for the multi-use exploitation that is widely recognised to be reflected in the development process itself.

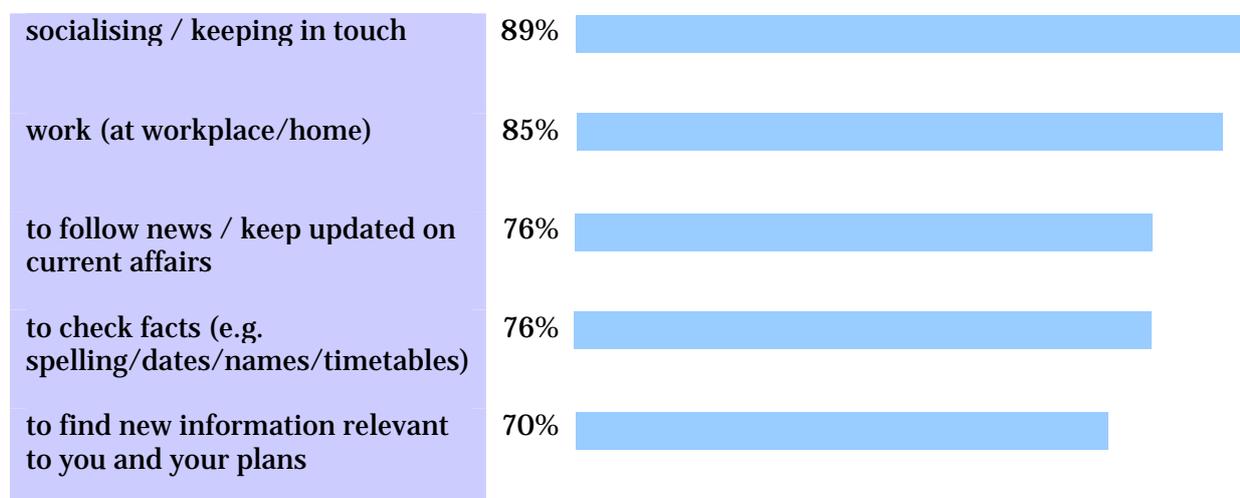
Once established, specific determinants of increasing uptake and interest among key interest groups and activists can be addressed. These might include issues / questions relating to:

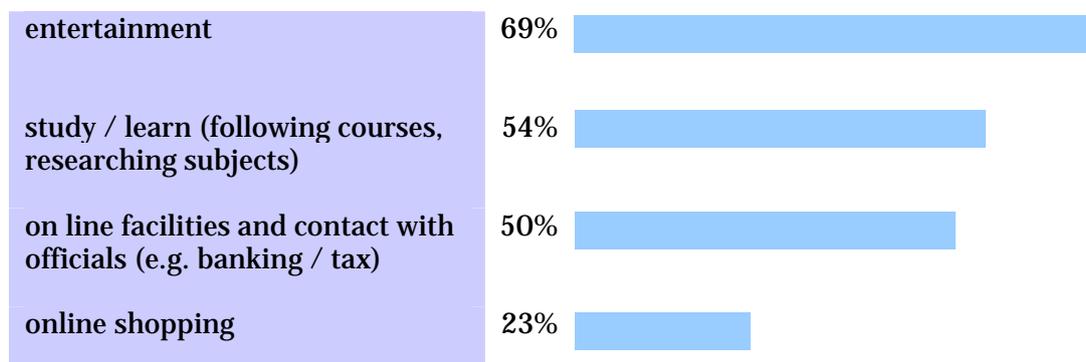
- the balance between time-rich and time-poor learners
- the propensity of experienced users of a range of ICT to apply their skills to learning
- the transferability of leisure use to 'learning' applications
- the potential to better exploit a blend / mix of applications among learners
- the identification /not of shared group characteristics
- key influences on promoting use among specific groups
- whether key success factors are related to the age of users

Encouraging greater uptake

Among the online respondents, the reasons for using technologies showed a high percentage use for learning. Overall, just over three quarters of respondents (79%) had used computers (or other technologies) for studying/learning or assessment. This is consistent with results of qualitative study – but only where users are already familiar with the technologies.

When online respondents were asked how they used ICT 'Socialising / keeping in touch' was most popular. The following reasons for using ICT frequently / daily were cited:





Challenges to change

Barriers to attracting learners to languages vary. Some aspects unique to language learning are the challenge to personal identity and potential loss of confidence resulting from diminished communication skills. These issues may be heightened by use in any professional context, under pressure or in contexts where the outcomes of exchanges may be career-critical.³⁰

Whilst technology offers solutions, issues of cost to users are increasingly important as services are used more widely and more ubiquitously. Priority tends to be for social or personal use and extending educational, non-social use into personal 'space' may be seen as invasive of private life, as underlined by the views of expert informants and publications already presented. Users tend to distinguish and prioritise spending on devices or equipment or services along a divide of personal and non-personal use.

For learning purposes, deeper consideration of applicable reference points is required and so the application of considerable time may be involved. Feedback from the media and others shows that older users, with more time are those most likely to manage to master the use of such a range of sources of content, materials and useful learning resources.

The challenge is to seek to create 'comfortable' and non-threatening learning environments and attractive new paradigms / models. A positive way forward seems to be to combine a deeper understanding of not only what is needed but to create a learning environment rooted in the behaviours of those communities. The process implies a *continual* process of research and feedback to keep in touch with the changing learning patterns and also to work within a flexible framework that allows for collaborations across the various media and their global organising networks in order to meet the need for sustained and widespread provision.

The recommendations suggest possible responses in terms of processes to open up provision to a flow of ideas but importantly, ensuring that the process is not tied in to static structures – as technologies, provision and user behaviours are changing so fast, a system that allows for new ideas and fresh approaches is essential.

³⁰ See Shield, L. & Hassan, X. (2002). 'Simulation globale in MOO: the architecture of anarchitexture', Paper presented at *EuroCALL 2002: Networked Language Learning*.

The current climate

The economic environment impacts upon training budgets leading to more intense budgetary consideration and scrutiny of value for money and returns on investment. Providers are increasingly required to deliver bespoke and specific training plans. Additional considerations include the tendency under such a climate of economic constraint are short-term employment offers and reduced career development or prospects.

Key messages from the study are that there is evidence of some increase in the use and exploitation of ICT in learning but it is hard to know how much e-learning is actually used by individuals. Use mainly seems to be in a blended / mixed mode use. The most popular approaches are simple in nature - over-complex solutions tend to push away from training solutions. Once a decision to learn has been made a typical model involves some face to face tuition with online support as well.

Findings are supported by the online survey where a vast majority of respondents considered using ICT for language learning important and interesting. However, there was a great difference in the potential uses seen for ICT, perhaps partly due to individual differences, preferences and learning styles, but also depending on the experience and practice around technologies. The main assets of using ICT were perceived to be

- enabling direct communication with native speakers
- facilitating access to knowledge, dictionaries and other learning resources
- providing a possibility of being exposed to a foreign language
- versatility, flexibility, and time-independence

In addition, some responses emphasised ICT as a motivational factor, whereas many thought that the motivation comes from learning, regardless of the medium. Many respondents also showed themselves to be conscious of the process of learning taking place in informal contexts (e.g. watching television, surfing the net) and unintentionally such as game-playing or sporting activities.

The main challenges for employers in using ICT to support language training were perceived to be:

- lack of support and structure
- limited communication, lack of interaction
- difficulty in finding material of good quality

What is notable is that in part these challenges could be overcome with training. To identify and to design effective training modes for key instigators of change are among the future challenges. The media potential, learning goals and targets, pedagogical innovations, learner styles, and the learners' life situations should be more systemically taken into account when designing new types of courses.

CONCLUDING REMARKS

The research presents an overview of formal and, particularly, informal language learning in the eight countries of the study. It identifies commonalities and differences between these eight countries in terms of take up and application of new technologies. The main findings can be summarised as follows.

Cultural, social and economic contexts of the countries all impact upon the take up of new technologies for language learning and attitudes to its use. In countries with a high penetration of technology, the population is more open to innovative applications of new media for language learning.

Pedagogical applications do not keep pace with and are not integrated into technological innovation and change. Educators are often resistant to using technologies which do not reflect what they consider to be current pedagogical best practice. Programmes of professional development for teachers do not always encompass current technological developments. Teachers often feel daunted by the speed of technological development which may threaten their relationship with learners who may be more skilled.

The application of new technologies in learning implies fundamental changes for the role of the teacher. These changes are often not addressed in professional training programmes or in continuing professional development.

Practitioners on the ground, even at national level, are often not aware of existing resources and support streams. Professional formal and informal networks are not tasked with seeking funding for plans to incorporate ICT and new media to support language learning.

Commercial players in the fields of telecommunications and broadcast media recognise the potential value of informal language learning. They are developing a number of applications which in the main have no pedagogical basis. There is a lack of symbiosis between these sectors and educators.

Company language training rarely uses new technologies to support language learning training. The advantages of ICT and new media in this context are generally not understood and any technological training innovation tends to be delivered in other fields of operation. Such development tends to remain unconnected to any language training undertaken. Corporate and commercial organisations of all sizes tend to cut costs and especially training and updating programmes in times of economic constraint. In the main they are unaware of the benefits for language learning and the potential cost-effectiveness in terms of time and financial investment of implementing technologies.

New technologies allow for increased learner control leading to the development of personalised learning environments (PLEs). The provision of appropriate resources, learning management systems and infrastructures to allow individuals to take control of their learning are generally not in place.

RECOMMENDATIONS

The recommendations presented in the following pages are based on information, perspectives and insights gathered during the course of the study, and are framed in the context of feedback from the study. They reflect the conclusions from the analysis and the ambitions expressed by experts, practitioners and professionals.

The recommendations address issues at a European, national and sometimes local level. They may have funding implications. Where this is the case, appropriate available funding sources might be approached. Some existing action programmes at national or European levels encompass appropriate fields of action, in which case they could be approached in the first instance.

The recommendations are presented in four sections: Communication, Professional Development, Pedagogical Innovation, and Cross-sectoral Initiatives.

Communication

Strengthen the awareness of existing programmes, sources of funding and the dissemination of successful initiatives, identified best practice and collaborative ventures in connection with the use of ICT and new media for language learning. Effective communication links should be a priority.

- At a national level contact networks reaching into communities, representing cross-sectoral working, directly involved as well as related areas of activity should be included. They should be regularly and actively engaged to promote collaborative ventures.
- National Agencies should keep constituent stakeholders regularly updated on language learning related issues. They should create action plans formulated to exploit existing resources applicable to language learning and funding. They should lobby for new funding routes where necessary.
- National Agencies should consistently and regularly inform relevant players about developments in ICT and new media and enable improved training and development for practitioners. They should work to identify available resources to target national, regional and local actions that address specific issues. Support and information distributed through existing formal networks should be strengthened and co-ordinated in order to identify potential funding sources.
- Existing formal networks, relevant to identified stakeholders at national, regional and local levels should take responsibility for creating better information flows and ensuring that the needs of such practitioners are met.
- Outreach and communication with companies and organisations should be instigated at national, regional and local levels via relevant networks.
- National and regional level links should be created between different sectors to promote language learning with the support of ICT and new media. It would work across existing networks such as the EBU, professional teaching groups, career development bodies etc. to promote informal language learning, publicise opportunities and facilitate participation. The aim would be to ensure that information flows are created among funding authorities that reflect new practices, changes and emerging opportunities across different sectors.

Justification

Evidence from the qualitative survey suggests that practitioners are often uninformed about progress, developments and actions in promoting language learning.

Key players are all too often unaware of existing initiatives, funding sources and good practice.

Links are generally sporadic and informal. Offering such a structure would help to ensure that actions included learners, teachers, commercial entrepreneurs and employers to maximize the use of resources and best practice.

Routes to funding, support for better communication, resources to support practitioners on the ground are under-reported.

Professional development

Strengthen the use of professional networks, via national communication bases better to inform practitioners about developments, existing sources of funding and to raise awareness of potential and best practice of ICT and new media for language learning.

- Prioritise training and career development as a prime need for teachers.
- Identify funding routes at a national level to resource teachers for training programmes.
- Encourage the support of training and development with formal recognition
- Identify resources to cover cost of releasing teachers to attend and participate in training sessions.

Justification

A key message that emerged from both the qualitative and quantitative surveys in the study was the importance of ensuring that teachers have access to appropriate training, development and support in using ICT and new media.

All too often they are unaware of developments and unable or unwilling as a result to implement changes.

Create opportunities for teachers to learn, practise and develop confidence in new systems.

- Create opportunities for experimentation, rehearsal and practice with new technologies by creating virtual learning environments which are structured and supported to reflect the learning promulgated in best practice for learners.
- Enable teachers to learn via experiential tasks within a personal and confidential and non-threatening environment. Once confidence is developed, and structures in place, systems can expand and extend to others via a cascaded model of training.

Justification

Evidence from the study showed that little if any attention is paid to affective factors in embedding changes to teaching practice or the uptake of new media and ICT.

In general teachers feel threatened by such changes –in terms of their reputations, professionalism and standing - and also by a lack of confidence in relation to their increasingly highly-skilled learners.

Priority should be given to encouraging greater use of ICT and new media, integrating such resources in language learning programmes and inculcating confidence among professional language educators in their use and application.

Pedagogical innovation

Support research into and development of Personal Learning Environments (PLEs.)

- Promote PLEs to support the use of user created content, access to real time, web-based information and their use of ‘everyday tools’ available to individual users.
- Develop informal learning models and environments based on user behaviours and best practice.
- Ensure that the strong warning about maintaining the division between social and educational environments is observed.

Justification

Some trends in the use of ICT and new media for language learning became apparent during the study. These seem to fall into three major, but interrelated areas:

- Web 2.0 and Personal Learning Environments
- Gaming
- Virtual worlds.

These are currently only perceived trends and require further investigation.

Investigate the use of models of social networking, broadcast-linked online content and gaming tools for language learning

- Establish robust networking on a national level and link to existing European networks to create:
 - well structured opportunities to exploit gaming in order to aim to attract a wider audience to language learning. Offer a real purpose for use
 - opportunities to share experience of using virtual worlds for language learning purposes.
 - small but numerous chunks of information, easily used and accessed in many languages.

Justification

Gaming is a widespread phenomenon and is an area that is worthy of further investigation as, in the main, massive multiplayer role playing games (MMRPG) operate in English but provide a learning opportunity to create greater diversity by encouraging the use of different languages. With some notable exceptions, neither popular offline games nor the phenomenon of MMRPG have been exploited for language learning. Games producers are interested in collaborative ventures.

The rise of commercial virtual worlds such as Second Life has already fostered greater interest, and support for communities of language learners.

Use popular communications to address the dominance of English among young users.

- Give priority to linking to access routes likely to be employed among younger users for e.g. travel or social use.

Justification

Evidence from all areas of the study suggests that the use of English is growing in informal use and across social networking sites. It creates a threat to the learning of other languages, of more formal English and even to learners' first languages where these are minority languages.

Cross-sectoral initiatives***Create effective and pro-active links to public service broadcast media with the specific aims of reaching new audiences, raising awareness, improving dissemination, encouraging collaborative learning ventures.***

- Ensure that existing links with media and broadcasting providers via networks such as the EBU are fully engaged and aware.
- Exploit funding opportunities for learning via action programmes related to broadcast and other media.
- Target funding opportunities to meet specific informal learning aims.

Justification

The study identified some examples of areas of cross-sectoral activity. These are occasionally national but mainly small scale and often local or regional.

Professional networks are under-exploited in terms of information dissemination and as an opportunity base for cross-sectoral information exchanges with a view to collaboration.

Create a systematic process for evaluation, feedback and measurement of outcomes.

- Build on success by evaluating actions via critical factors such as: return on investment funds, value for money, attainment of targets and outcomes and effective dissemination.
- Use communication routes to design actions against defined needs and ambitions of specific target groups.
- Motivate new players to collaborate and provide dynamic structure of development.
- Exploit links with commercial partners to create measures of effectiveness reflecting the dynamics of use and demand.

Justification

Where success is achieved it is rarely evaluated against mutually valuable criteria. Such a process would build on existing good practice elsewhere, allow robust feedback to identified stakeholder partners and create a more meaningful and persuasive base to promulgate further joint actions.