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THE **IMPACT** OF
NEW INFORMATION TECHNOLOGIES
AND
INTERNET
ON THE TEACHING OF FOREIGN LANGUAGES AND
ON THE ROLE OF TEACHERS OF A FOREIGN LANGUAGE

commissioned by the
Directorate General of
Education and Culture

**The Impact of Information and
Communications Technologies on the
Teaching of Foreign Languages and on the
Role of Teachers of Foreign Languages**

**a report commissioned by the
Directorate General of Education and
Culture**

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Executive Summary

The use of computers in the teaching and learning of Foreign Languages (FLT & FLL) in universities dates back to the 1960s, but it was not until the advent of the personal computer (PC) in the late 1970s that computers became accessible to a wider audience. By the mid-1980s computers were in widespread use in European schools and the acronym CALL (Computer Assisted Language Learning) had been coined. Nowadays it is more appropriate to talk about Information and Communications Technology (ICT) and FLT & FLL rather than CALL, thereby emphasising the important role that computers play in enabling teachers and students of languages to communicate with one another across the globe. The growing importance and globalisation of ICT in FLT & FLL was reflected in the establishment in 1986 of **EUROCALL** and in 1998 of **WorldCALL**, European and global organisations of professional associations that aim to outreach to nations currently underserved in the area of ICT and FLT & FLL.

ICT is ubiquitous in contemporary society and permeates almost all forms of human interaction. Its presence and usage have brought about changes of paradigms in communicative behaviour, above all in the spheres of business and administration, and governments in Europe and beyond have become increasingly aware of the need to provide education and training to meet the challenges and opportunities which the global economy, fuelled by developments in ICT, presents.

The new technologies are breaking down borders and barriers at a faster rate than is possible in physical terms. Sudden, unexpected encounters with other languages and cultures confront European citizens with new choices, opportunities and challenges. Thanks to the WWW, access to authentic materials has never been easier; vast linguistic resources and an exhaustive range of materials are available in all languages of the European Union and beyond, ready for immediate exploitation.

The aim of this report was to survey current developments in ICT, to measure its impact on FLT & FLL in Europe and to predict possible future developments. One important fact that has emerged from this study is that **Foreign Languages** as a subject area is "**different**" from most other subject areas in the curriculum, namely that it is skill-based as well as knowledge-based, and in this respect it has more in common with Music than, say, History or Geography. This has implications both for the types of hardware and software that are used in FLT & FLL, but also for FLT pedagogy and methodology.

The acquisition of new skills, referred to in the report as "**the new literacies**" (technical, critical, linguistic and cultural), plays an **extremely important role** in the acceptance, adoption and use of ICT in FLT. **Teacher training** is shown to be **the key** to the successful introduction and deployment of the new media. Special efforts are required to overcome observed gender and generation divides and to redress the balance by providing specific training programmes which encourage female teachers and older faculty to become acquainted with ICT and its attendant advantages.

With regard to pedagogy and methodology, research has shown that a "**shift of paradigm**" is necessary in teacher / learner roles. Co-operative, collaborative procedures are called for to harness the wide range of possibilities the new media offer. Teachers are called upon to abandon traditional roles and act more as guides and mentors, exploring the new media themselves as learners and thus acting as role models for their learners. The case studies show that there is closer interaction between teacher and students when the new media are employed.

Concerning the general **availability** of the necessary **technology**, recent statistics indicate that all Member States of the European Union are well on the way to achieving a satisfactory state of "network-readiness" which will facilitate and promote **eLearning**. The same is largely true of the pre-accession countries, which are making remarkable efforts to catch up and to bridge the **digital divide**.

Research also indicates that **European teachers** seem to be overwhelmingly **open to technological change** with an enormous reservoir of potential Internet users amongst EU teachers. Although there are few specific statistics for language teachers, what information is available indicates that, apart from ICT subject specialists, **language teachers** are the most **open to** the use of **the new media**.

However, **the use and deployment of ICT in FLT and FLL is far from satisfactory**, as ICT resources are traditionally reserved for “(computer) science” subjects, and rarely assigned to arts subjects. A general lack of appropriate training of language teachers in meaningful uses of ICT tends to strengthen this trend.

The case studies presented in this report provide samples of good practice and illustrate that the use of ICT increases motivation amongst teachers and learners alike and leads to improved performance and motivation on the part of the learners.

In their responses to the questionnaire distributed, **ministries of education** showed a **growing awareness** of the need to address the question of providing specific support for ICT in FLT. Research into this area is being initiated and teaching / learning programs are being developed for a number of languages (albeit the most frequently taught and used in Europe). Most expect a considerable increase in the use of ICT in FLT & FLL in the near future.

Experts polled about the **future use of ICT in FLT & FLL** are unanimous in their view that ICT will play an increasingly important role as the new media become increasingly integrated into everyday life. They predict greater co-operation and collaboration at a European and at a global level, particularly significant for the least widely used and least taught languages (LWULT). Advances in technology and increased user-friendliness of equipment will break down resistance to ICT use in and outside the classroom. The present fascination with technology will fade, giving way to an emphasis on improved pedagogy which will facilitate **“blended” learning**, which will become increasingly time and place independent. There will be a shift from passive consumption of ready-made programmes to independent building of content, tailor made for specific groups or individuals.

However, the experts emphasised that, although increasing use is being made of ICT for content research and immediate communication needs in foreign languages, at present, **not enough attention** is being devoted to questions of **how the new media can systematically aid language acquisition and learning**.

In summary, it can be said that the positive potential of ICT in FLT & FLL has been recognised, the technology and materials are available, but ongoing training is essential if we are to reap the benefits of the rich learning environment which ICT offers for foreign language learning.

Methodology

Definition

This report is about the use of Information and Communications Technologies (ICT) in FL teaching and learning in Europe.

For the purpose of this report the term **Information and Communications Technologies** includes technologies in which the computer plays a central role, i.e. Computer Assisted Language Learning (CALL), the Internet, and a variety of generic computer applications. Broadcasting (including digital radio and television and satellite television) is subsumed under the heading **multimedia**.

Objectives

This report sets out to give a general overview of **availability of technology** for FL teaching and learning in Europe today in all sectors of education, to **outline the various uses of ICT** in this sector, to provide studies of **best practice** illustrating meaningful deployment of these resources, and to point towards **future developments** and possible implementation in the coming decade.

Comments and conclusions focus on the relevance of ICT in FL teaching and learning for the European Commission's overall language objectives, the potential of the new media for improving the quality of foreign language teaching and for increasing the number of successful foreign language learners, as well as providing support for the LWULT languages in Europe.

Approach

A small steering group of experts was formed, consisting of academics specialising in the area of ICT in FL teaching and learning and currently heading associations devoted to the exploitation and development of this field. Their role was to advise on the current state of the art and to identify examples of good practice. This group was complemented by a wider group of practitioners acting as advisers from a range of European countries and representing all different sectors of education. Both groups provided advice, guidance, feedback and input for the study. In addition, practitioners nominated by their national authorities to participate in a series of workshops devoted to the impact of ICT on FL teaching and learning and co-ordinated by the ECML were consulted to provide further information and more specific focus.

Relevant statistics relating to the availability of computers and "Internet readiness" in the educational sector were examined (see **Appendices**) and ministries of education in all countries of the European Union and in affiliated and in pre-accession countries were polled in order to provide a narrower focus relating to the use of ICT in foreign language teaching and learning in the areas for which they are responsible (see **Appendix A**).

Existing publications, articles, and published research documentation and forthcoming publications and multimedia were examined. In addition, existing networks, thematic network project groups, ad hoc professional interest groups and individuals were approached through calls for information, Internet searches and personal contact. Delegates to the EUROCALL 2002 conference were interviewed and a "Delphi Oracle" approach was taken, canvassing the views of almost 100 experts in this field who were attending the conference with regard to their experience and their predictions relating to the future use of ICT in language teaching and learning.

Structure of this report

Section 1: Overview of the use of ICT in FL teaching and learning

This section provides an overview of the different kinds of hardware and software currently in use in FL teaching and learning and summarises their applications.

Section 2: Case studies

This section consists of over 20 case studies from seven different countries exemplifying potentially interesting approaches to FL teaching and learning, quality innovation and examples of best practice. The transfer potential of each case study is outlined as well as the relevance of each case study to further developments in the field.

Section 3: Future prospects

This section looks at current developments in the field of information and communications technology and applications beyond the education sector, drawing upon predictions by experts in the field of ICT in order to envision future prospects and scenarios for ICT in language teaching and learning.

Section 4: Conclusions and Recommendations

This section makes recommendations for the extension of good practice and outlines development steps that might be considered at the European level to further the use of ICT in FL teaching and learning in a meaningful, strategic fashion. Structures to support research efforts and the implementation of schemes designed to make ICT available in FL teaching and learning are proposed. This section includes the results of research carried out by questionnaires completed by delegates to the **EUROCALL** conference, August 2002, and by experts registered for a Council of Europe workshop on ICT in Vocationally Oriented Language Learning, September 2002.

References

Details of printed publications, conference papers and websites referred to in this report.

Appendices

In areas as fast-moving as ICT, it is extremely difficult to obtain reliable, up-to-date information, and even more difficult to make predictions about how availability is likely to change over the next ten years. The breathtaking speed at which innovations are taking place and their introduction into everyday life could never have been accurately predicted ten years ago. However, we have found useful references and indicators which we feel can serve as guiding factors for future developments. The **Appendices** contain reports and surveys that we felt were particularly pertinent to the present study and the results of research carried out by questionnaires completed by ministries of education throughout Europe.

Questions addressed and lessons learnt

Main questions

- To what extent have educational institutions adopted objectives and practices that reflect a focus on **co-operative, collaborative learning and autonomous learning strategies**?
- What **ICT infrastructure** (equipment, software, access to the Internet, etc.) is available in educational environments?
- What **staff development and support services** exist with regard to ICT?
- What is the role played by leadership “gatekeepers” such as school principals and local authorities and to what extent does **management** offer a supportive climate for the use of ICT in the educational environment?

Lessons learnt

“The main reason for non-use [of ICT] is insufficient access to hardware and lack of technical support. Very few teachers dislike / fear ICT once they have seen the possibilities.” *Ros Walker, University of Hull.*

Lessons learnt from research and the case studies reported in this study indicate that the ingredients necessary for the successful introduction of ICT in FL teaching and learning in institutional contexts where multimedia laboratories have been introduced are:

- ready access for all learners
- the presence of a full-time technician devoted to servicing and maintaining the functioning of the multimedia laboratory
- the employment of a full-time webmaster
- adequate training for all new teachers and in-service training for others
- meaningful use of the multimedia laboratory classes for intensive practice
- learner-centred approaches to learning
- a total commitment by senior management to the implementation of ICT in language learning classes with vision, support and proactive leadership

New literacies, new media, new challenges

The idea that ICT in FL teaching and learning should be used primarily in dedicated multimedia laboratories is increasingly challenged by practitioners. The relentless march towards increased miniaturisation in wireless applications (mobile telephones, palmtops, etc.) means that **personalised communication devices** are becoming widely available to almost all members of society.

Communications technology is both ‘shrinking’ - becoming portable and seamlessly entering everyday devices – as well as becoming all-encompassing and distributed throughout the world. This continues to have a considerable impact on how communities interact. The emergence of new genres, new communicative modes will inevitably follow. There will be a pressing need for teachers to know how to cope with **linguistic challenges** that transcend familiar standards and norms. Language teachers must rise to the challenge of harnessing the potential of such new devices for their own and their learners’ particular needs.

New pedagogical models

Prerequisites for successful implementation of ICT

Whereas, in the past, education was usually a matter of uni-directional transfer of information from the teacher to the student ("top down"), we believe that new pedagogical models now need to be explored in order to prepare future citizens for co-operative, collaborative and life-long learning.

There is, as yet, little consensus about what these new pedagogical models should encompass. There are notions that students should be trained to learn more autonomously and to gain access to and digest information more independently than has been the case to date, and that the information gained must be converted into accessible knowledge and skills.

New organisational and pedagogical models are called for, including ICT for teacher education (using a learning-by-doing-and-reflecting approach), and dissemination / upscaling of successful models. Examples of new models reflecting samples of good practice are offered in the case studies in **Section 2**.

The new role of the teacher

There is an increasing awareness amongst educationalists, researchers and administrators that the introduction of the new media into educational institutions calls for a change in learning and teaching patterns. For example, 73% of the experts polled for the *Delphi Study* (Vollstädt – forthcoming publication) conducted for the German Federal Ministry of Education and Research over a period of two years and culminating in a symposium in February 2002, believe that the new media will lead to a major change in the **culture of learning**. The reasons given for this supposition are the learning efforts and learning possibilities linked to the new media. They believe that the new media:

- call for and facilitate more independence on the part of the learner, more self-directed activities and the organisation of learning processes;
- encourage interactive work;
- facilitate direct feedback;
- call for a change in the role distribution of teacher / learner, where learners take on teaching functions;
- enable contents to be continually updated with minimum efforts;
- provide faster access to teaching materials.
- provide greater opportunities for individual forms of learning;
- but also demand more social learning in group and team work;

Experts, however, emphasise that new teaching and learning media do not automatically lead to a new **culture of learning** but simply offer the opportunity for change. Teachers' attitudes to the new media and appropriate concepts for their use and for the orchestration of learning will decide whether the desired outcomes can be achieved and whether a major shift in the culture of learning is possible.

The pluralisation of learning spaces beyond the institutional context (school, university, teaching institution) is of particular relevance and will change the character and contents of school-based learning and allow teachers to take into consideration the complexity and individuality of learning. More than half the experts polled in the Delphi Study cited above were of the opinion that there will be a considerable growth in the importance of learning processes outside school. Nevertheless, they emphasised that the chief place for learning will remain the school / teaching institution.

In addition, it should be stated that the new media are not seen as a panacea for teaching / learning problems, nor are they a replacement for present models of language learning. ICT alone cannot provide a comprehensive basis for language learning. ICT must be integrated into present, proven and successful practice if full benefits of their advantages are to be reaped. Their adoption should represent a complement and addition to present models, contributing to an evolution towards the concept of a new **culture of learning**.

ICT competencies required of language teachers:

Language teachers working in a media-rich environment will, like their counterparts in other disciplines, need to:

- recognise the individual learning problems of learners;
- make a careful and considered choice concerning the use of the media;
- check the truth of information content offered;
- develop efficient search techniques and be capable of conducting effective research with the help of the computer;
- be able to use standard software confidently and competently;
- make wise and critical choices of information found.

New media and the *culture of learning*

The new media not only facilitate a changed **culture of learning** in institutional contexts, they also demand such changes. They provide new opportunities and challenges by:

- offering a wider range of teaching contents (especially teaching methods);
- enabling more self-directed learning, offering a range of choices, individual learning pathways and freer forms of learning;
- offering teachers and learners the chance to plan and organise courses together (empowering learners to influence the choice of teaching contents);
- freeing learning and teaching from the limitations and constraints of the traditional classroom by opening up and using spaces outside the school/ teaching institution;
- facilitating communication between learners and between learners and the teacher via the Internet.

Consequences for teachers

The changed diversity of the media in teaching and learning in schools not only changes the places and the quality of learning, but influences learning processes from a didactic and methodological point of view, requiring special competencies of teachers. Changes in society at large (globalisation, networked environments, working across time, place and cultures) demand new types of working styles and language competencies. At the same time, much language acquisition often takes place in out-of-school contexts, often in online environments, and becomes a strong socialisation factor for learners.

In ICT-rich environments, teachers must above all:

- improve their didactic competencies linked to media;
- provide less information and instruction, but offer more consultation in learning processes;

- monitor learning processes rather than direct them;
- offer and organise group work to a greater extent.

This means that teachers need to focus on the design of situations, sequences and activities conducive to learning languages **by encouraging learners to participate in collaborative efforts**. Indeed, the management of learning scenarios, where learners and teachers complement one another's skills, expertise and knowledge in collaborative efforts, must form the basis of the education of the language teachers of tomorrow.

1. Roles of teachers

1.1. The teacher as **facilitator and guide**

As facilitators, teachers must in many ways know more than they would as directive givers of information. Facilitators must be aware of a variety of materials available for improving students' language skill, not just one or two texts. The language textbook is no longer the sole source of information. Multimedia programmes offer sound and vision, showing how native speakers interact; electronic dictionaries and encyclopaedias are available for instant reference; online newspapers provide up-to-date information on current affairs in the countries of the target language; (official) websites offer background information on policy, tourism, political views. Teachers need to know how to teach learners to use all this material effectively.

As facilitators, teachers have to be flexible, responding to the needs that students have, not just what has been set up ahead of time based on a curriculum developer's idea of who will be in the classroom. Teacher training is a key element to success in this more flexible language classroom, so that teachers can use multimedia and other resources effectively.

1.2. The teacher as **integrator** (of media)

Teachers must not only know and understand the functions of different media available in a media-rich environment, they should also know when best to deploy them. In the joint construction of projects with their learners, they need to guide learners in the use of word-processing, graphics and presentation programs. Integration of audio-visual elements will bring home to learners the fact that the foreign language environment of the target language is as vibrant and multi-faceted as the society in which they live.

1.3. The teacher as **researcher**

To keep abreast of developments in the countries of the target language in an increasingly complex world, teachers need to know how and where they can access information for their own and for their learners' use. Knowledge and competent use of search engines and reliable information sources are essential. For those concerned with mainstream education, the propriety and reliability of information sources must figure as one of the main criteria for the selection of background material. Familiarity with the use of electronic tools for language analysis (e.g. concordancers) will enable teachers to further develop their own linguistic and professional competence and increase their confidence in the use of the language.

- 1.4. The teacher as **designer** of (complex) learning scenarios
In order to orchestrate successful learning scenarios, teachers need to learn how to put together tasks and materials to guide their learners to successful execution and conclusion of their projects. Unlike work with conventional teaching materials (textbook, workbook, audio and video materials), which have been graded, pre-assembled and collated in a chronological order, the design of learning scenarios is much more complex, requiring higher order skills involving researching and evaluating source materials, setting overall aims and objectives and breaking down tasks into meaningful and manageable sequences.
For the teacher tackling this for the first time, the task is very daunting indeed. Encouragement, help and advice is needed in terms of examples of good practice which may be emulated or serve as sources of inspiration for similar undertakings. If this new role of language teachers is accepted and encouraged by educational authorities, the implications in terms of duties and responsibilities need to be considered. Lesson preparation time increases as these tasks are taken on and this fact must be honoured in teaching contracts, if teachers are to adopt and accept the approach.
- 1.5. The teacher as **collaborator** (with other teachers)
The investment in time and effort implied in 1.4 above implies a sharing of responsibilities and tasks among teaching staff, if there is not to be a general rejection of new technology because it confronts them with an impossible workload. Collaboration with colleagues will lighten the burden and make the efforts more fruitful and rewarding. Obviously, co-operation within a specific teaching institution will prove more efficient, producing tailor-made responses to the local situation, but the new media provide possibilities for exchange between institutions and beyond (national) borders. Teachers of the less widely taught and used languages could well profit from such internet exchanges, helping them to overcome the sense of isolation many experience in their teaching situation. New management patterns must emerge to ensure fair distribution of workloads, and revised job descriptions will be necessary to share and co-ordinate the tasks in hand.
- 1.6. The teacher as **orchestrator** (technology, learners, curriculum)
Teachers will need to develop fairly sophisticated management skills in order to be able to provide a healthy balance between the different elements which make up the new learning environments. Mastery and confidence in the use of technology needs to be applied to the learning inclinations and abilities of individual learners whilst covering the prescribed syllabus or curriculum which is often set by outside authorities. Because of the immediacy of ICT, many decisions have to be made on an ad hoc basis and time budgets need to be constantly reviewed if optimal results are to be attained. Present indications are that traditional time frameworks of 45–60-minute lessons drastically need revising, if the potential of the new media is to be exploited to the full.
- 1.7. The teacher as **learner**
For many teachers, opening up the classroom to the outside world presents as much a threat as an opportunity. Their authority is challenged in a world of constantly changing patterns, when it is often difficult to establish, for example, the difference between “correct” and “incorrect” language use. In the protected environment of the textbook they have recourse to the authority of the author(s) and publisher. In the wild mangroves of the real world they must constantly be searching for new patterns confirmed by reliable data from trusted sources. A further challenge is often presented to them by learners who possess more advanced computer skills than they do. However, if they are prepared to enter into the adventure of ongoing learning together with their pupils, they will find it a rewarding and fruitful experience. A prerequisite is that they are prepared to

act as the experienced guide for their learners and not as the all-knowing guru who controlled and dominated the classroom of yesteryear.

1.8. The teacher as **evaluator**

If task-based, project oriented work in the foreign language classroom using the new media is to become the norm, or at least form an important part of activities, then models of evaluation need to be revised radically. Standard multiple-choice examinations are, for example, hardly likely to test the learners' newly acquired skills in (foreign language) Web literacy. A portfolio-based approach to assessing language competence and skills acquired would seem to be a more appropriate way of recording progress in the target language. As the skills to be acquired by learners are largely identical to those to be mastered by teachers-in-training, this form of evaluation should be practised in initial and INSET training courses, providing teachers with first hand experience of the system and with direct relevance to their own situation.

2. The new skills

In order to function adequately in the world of the new media, teachers need to acquire and master a whole range of new skills that are often taken for granted in today's business life. The listing of roles above overlaps to a great extent with the following inventory, yet by recording the new skills required here, we wish to emphasise their importance and would warn against assuming that they are part and parcel of everyone's repertoire. In addition, in the context of education and training, they take on a different perspective and dimension.

2.1 Technical Skills

Teachers need to become completely computer-literate and have the confidence to use the available technology adequately. They should be able to cope with the most common problems arising from the use of computers very much in the way that average car drivers can cope with commonly occurring problems with their motor vehicles, i.e. no specialist knowledge of the machine, but knowing what to do when routine breakdowns occur. It is impossible to list here what this entails, as advances in technology mean that problems of the past are often eliminated in later generations of equipment. However, it seems apposite at this point to remind readers that the majority of foreign language teachers in Europe are female and that the **Flash Eurobarometer** surveys referred to in **Appendix B** have indicated that this group of teachers is less receptive to the use of ICT in language teaching than their male counterparts. Indeed, when one takes into consideration that perhaps 70%–75% of language teachers are female, the relative value of general statistics is put into perspective. The message is clear: more attention needs to be paid to the "nuts and bolts" of technical training.

2.2 Organisational Skills

New organisational and pedagogic models are called for, including ICT for teacher education (using a learning by doing and reflecting approach), and dissemination / upscaling of successful models. The innovative potential of languages going online must be fully grasped, where teachers can:

- build and sustain language communities;
- dismantle them when they have exhausted their function;
- link minds and hearts in order to negotiate everyday concerns or complex vocational issues.

On the other hand, true success with the new media will be attained when tried and trusted routines and materials are combined and integrated successfully. Language use is and remains a social activity for which you need real partners for

communication. Surrogates may serve a useful purpose but cannot replace face to face exchanges with the teacher and fellow learners.

2.3 Conceptual Skills

There is a quantum leap for language teachers moving from well-trying, controllable media like the textbook with its accompanying supplementary materials to the more open, inquiring approach required when exploiting the new media to the full. Teachers must move to a role in which they are designing learning experiences and planning encounters for their learners with the target language environment, often in situations where complete control of the means at their disposal has to be abdicated to the learner. Good, practical examples with convincing theoretical underpinning giving a rationale for choices made are needed when introducing this "change of paradigm".

2.4 The new literacies: scientific, digital, critical, linguistic, cultural

The skills, competencies and attitudes required to participate in all spheres of life have changed. One aspect of the quality of lifelong learning is the extent to which an education and training system is successful in equipping people to negotiate the shifting demands placed upon them. Teachers in particular should be given the opportunity to update, extend and acquire new skills so that they are better equipped to meet changes in the workplace and in society at large as well as putting them in the situation where they can pass on such skills to their learners. Teachers need to understand and master the new literacies (scientific, digital, linguistic, cultural) which are emerging and the demands they place on both language learners and teachers. In addition, an awareness of new types of language forms and genres, and to what extent language acquisition must be complemented by language socialisation, is essential.

2.4.1 Scientific literacy relates to the ability to think scientifically in a world which is increasingly shaped by science and technology. This kind of literacy requires an understanding of scientific concepts as well as an ability to apply a scientific perspective. PISA defines scientific literacy as the capacity to use scientific knowledge, to identify questions, and to draw evidence-based conclusions in order to understand and help make decisions about the natural world and the changes made to it through human activity.

2.4.2 Digital literacy relates to the ability to use ICT adequately and apply them in a principled way to the subject matter at hand. For the language teacher, it refers in particular to Web literacy, i.e. the ability to make use of the World Wide Web for language research, to the use of linguistic tools and standard programs for exercises and testing.

2.4.3 Critical literacy implies the ability to evaluate the credibility, usefulness and reliability of any given sources of information. It also encompasses skills in sifting and identifying the relevant and important in the flood of information which threatens to engulf the unprepared.

2.4.4 Linguistic literacy in this context refers to the ability to recognise different genres as they develop, to track developments in use and usage and to adapt teaching materials and approach to the changing situations.

2.4.5 Cultural literacy relates to observing and recording changes in the society or societies of the target language together with implications for language teaching. Such changes may be of a general nature leading to convergence between own, native culture and the target culture or to changes particular to the target culture. The new media provide a greater sense of immediacy than was possible in the past as trends can be followed as they develop.

2.5 Mediation Skills

The role of mediator is not new for language teachers as it has always been their task to act as intermediary between two cultures as they introduce learners to new linguistic and cultural concepts. However, again, the immediacy offered by the new media forefronts this role and gives it a new weight. Within the relatively safe confines of traditional textbooks, teachers could introduce relevant aspects of the target language and culture in small, manageable chunks. Access to the “real world” of the target culture and, at times, confrontation with it, requires new strategies and approaches that need to be learnt and practised.

2.6 Appropriation

The metaphor of “the guide on the side”, often used to show a shift of emphasis in the role of the language teacher in an ICT environment, is now felt to be somewhat simplistic and romantic when the teacher is faced with dynamic and complex ICT-infused learning environments. Studies show that despite the indisputable potential of new technologies, teachers experience severe problems in exploiting this potential.

Often, the reason is to be found in a mismatch between the ‘traditional’ educational setting with its goals and exam oriented curriculum in the form of a single-subject lesson on the one hand, and the transcending and transforming potential of ICT on the other. Exploiting the full potential of ICT, we need to acknowledge their capacity for compressing space and time and how they are becoming a part of our lifelong learning, whether at school, at work, or at home. These aspects can hardly be expected to materialise within a traditional setting (the 45 minute lesson) as described above.

Andreas Lund has borrowed the concept of “appropriation” from Bakhtin (1981) to describe the various stages that teachers wishing to adopt or “appropriate” the new technologies go through before they achieve mastery or assimilation into their regular professional practice. They are as follows:

2.6.1 Failed appropriation. This type assumes an attempt (not necessarily premeditated or deliberate) on the part of the agent, but resulting in lack of appropriation. Regarding ICT, such a lack of appropriation might be explained by the complexity or instability of the technology, its incompatibility with the teacher’s framework (curriculum, policies, teaching schedules) for teaching and learning a language, cultural mismatch between teacher and learning environment etc. Constraints dominate affordances.

2.6.2 Nominal appropriation: With respect to ICT, this would suggest awareness of different types, appropriating a ‘label’, but without any understanding of features that might prove conducive to language learning. For instance, taking ‘pedagogical software’ at face value, or not realising the often idiosyncratic and sometimes plain faulty results of using spell- and style-checkers, would exemplify nominal appropriation. In the case of foreign language teaching, a teacher expressing a commitment to a communicative approach while practising a drill-and-practice variant would amount to the same.

2.6.3 Instrumental appropriation: Regarding ICT, this would suggest some instrumental skills and a surface understanding of the underlying concept. The sum of the skills and the view does not add up to the conceptual whole of the tool, e.g. what word-processing or the Internet mean beyond facilitating certain mundane chores. Instrumental appropriation is often at the heart of technology-driven projects and programs, and has for a long time dominated in-service training.

2.6.4 Conceptual appropriation: Teachers who grasp the conceptual underpinnings of ICT would be likely to use the tools in innovative ways and/or in new contexts. Such teachers would design ICT-rich settings and situations conducive to learning where technologies are integrated in disciplinary, cross-disciplinary and social relations. However, grasping conceptual underpinnings does not necessarily materialise in full, instrumental appropriation of the tool.

2.6.5 Cultural appropriation: The term **cultural appropriation** that is suggested here places emphasis on the synergy of conceptual and instrumental appropriation while adding the notion of culture. Teachers who manage to culturally appropriate ICT cannot only adapt to and engage in current practices and discourses but are also able to transform and transcend these as well. They overcome the tensions posed by the traditional setting and the potential in the tools and manage to fill new technologies with their own intentions and purposes. In the case of foreign language teaching it means that teachers would know how ICT might infuse and change social practices (like language acquisition) and design paths and activities that are conducive to learning the language. This level would mean a reflective approach to ICT.

Obviously, it is the latter type of appropriation that we would like to see in language teachers' deployment of the new media, but this can only be attained with meaningful, systematic and ongoing training as well as exposure to samples of good practice.

2.7 Heightened analytical skills

Teachers must also be made aware of the dangers and pitfalls of using the new media as well as how to avoid or overcome them (see also the reference to the ECML website pages on "Web literacy" later in this report). It may be argued that analytical skills have always formed part of the teacher's professional repertoire, but, again, immediacy and general availability of content mean that teachers must be prepared to make quick judgements about the suitability of sources which their learners may access.

Conclusion

The media literate teacher will, then, have to master a wide range of skills and competencies. But, above all, we believe that teachers need to focus on the design of situations, sequences and activities conducive to learning languages **by encouraging learners to participate in collaborative efforts**. Indeed, the management of learning scenarios where learners and teachers complement one another's skills, expertise and knowledge in collaborative efforts must form the basis of the education of the language teachers of tomorrow. The contribution by Andreas Lund in **Section 2** below will serve to provide additional arguments and examples to illustrate this assertion.

The role of the learner

Just like the teacher, the learner also has to adjust to a new role in the learning process. S/he must take on new responsibilities, often working without any supervision whatsoever. Classes will become much more learner-centred, with learners' time and effort devoted to authentic reading and writing tasks related to authentic communication with (native speaker) partners. For the first time, learners of a language can now communicate inexpensively and quickly with other learners or speakers of the target language all over the world. They have access to an unprecedented amount of authentic target-language information, as well as possibilities to publish and distribute their own multimedia information for an international audience. Having and manipulating language data in multiple media provides learners with the raw material they can use to re-create the language for themselves, using their own organising schemes. Activities will encourage students to explore and be creators of language rather than passive recipients of it furthering the idea of the learner as an active participant in learning.

The three stages of implementation

Three stages related to the introduction of ICT in FL teaching and learning at ministerial level have been identified:

- i. A general **awareness of the technical possibilities** coupled with the purchase of equipment and ready-made resources.
- ii. The realisation of the **need for and implementation of support structures:** teacher-training, technical support and senior management commitment to the integration of ICT in (language) training.
- iii. The establishment of resource centres/persons and networks to adapt offers to needs, leading to a **principled approach to a meaningful integration** of the new media into the teaching / learning process.

The research effected for this report indicates that most national ministries in Europe are slowly moving from Stage 2 to Stage 3, but that full integration of technology into the FL curriculum has not yet been achieved.

Important shifts in FL teaching and learning

In their parallel study on CLIL, Marsh et al. (2002) have outlined important shifts in focus in FL teaching and learning in Europe over the past 20 years and the positive impact of the new technologies on learners' attitudes. However, recent research indicates that, while increasing use is being made of ICT for content research and immediate communication needs in foreign languages, less attention is being devoted to questions of how the new media can systematically aid language acquisition and learning.

Lack of ICT in FL teaching and learning

Statistical studies reveal increasing awareness on the part of authorities of the importance of access to the new technologies, and the learner/computer ratio in schools and other sectors of education in Europe has improved dramatically. On the other hand, the use and deployment of information and communications technologies in language teaching and learning is far from satisfactory as ICT resources are traditionally reserved for "(computer) science" subjects, and rarely assigned to arts subjects. A general lack of appropriate training of language teachers in meaningful uses of ICT tends to strengthen this trend.

Gender and generation divides, highlighted in research on the use of ICT by teachers in schools, indicate a need to redress the balance with specific training programmes encouraging female teachers and older faculty to become acquainted with ICT and its attendant advantages.

Section 1: Overview of the use of ICT in FL teaching and learning

The technology

Before discussing the use and relevance of ICT in FL teaching and learning, it would seem useful to review the technologies which are currently in use in education.

The following table gives a general overview of the affordances and limitations of various technological resources widely in use today in education. It is taken from Chapter 7 in W. D. Haddad & A. Draxler (2002) *Technologies for education: potential, parameters and prospects*, a report prepared for UNESCO and the Academy for Educational Development. The report is downloadable from the Academy for Educational Development website: <http://www.aed.org/publications/TechEdInfo.html>

AFFORDANCES AND LIMITATIONS OF MODALITIES

MODE	INSTRUMENT	AFFORDANCES	LIMITATIONS
Text	Books/ magazines	<ul style="list-style-type: none"> > Portable > Durable > Can present complex information > Sequential structure guides learner > Little eyestrain > Moderate cost of development 	<ul style="list-style-type: none"> > Difficult to modify (as in localization, updating, etc.) > Requires literacy plus higher-order thinking skills > Content is difficult to extract for use in other resources > High per-unit cost of publication
	Web page	<ul style="list-style-type: none"> > Dynamic and easily modified > Hyperlinks enable nonsequential navigation > Low cost of development and very low publishing costs > Supports interactivity (e.g., navigation, user-entered information, etc.) > Can support assessment 	<ul style="list-style-type: none"> > Nonsequential structure may obscure critical information or cause confusion > Reading may cause fatigue > Requires PC, electricity, connection > Potential additional system requirements (e.g., Java, plug-ins)
Images	Printed photos, maps, and schematic drawing	<ul style="list-style-type: none"> > Concrete, specific, detailed information > Appropriate for learners with "visual intelligence" > Engaging and motivating for many learners 	<ul style="list-style-type: none"> > Low information value relative to text > Resistant to reuse by learners > "Visual literacy" skills required for best use > High cost of reproduction
	Digital photos, maps, and schematic drawings	<ul style="list-style-type: none"> > Affordances similar to printed photos > Easily copied, shared, and used > Low costs for reproduction and publishing > Can be data-based or Web-served for delivery to handheld computers and other "anytime, anywhere" devices 	<ul style="list-style-type: none"> > Limitations similar to printed photos > Require PC and electricity, possibly an Internet connection
Audio	Radio	<ul style="list-style-type: none"> > Can present contemporary and topical information easily > Highly accessible and potentially engaging format (no literacy skills required) > Widespread adoption in developing countries > Moderate production costs > Highly scalable > Low-cost hardware 	<ul style="list-style-type: none"> > Information is not durable; learners can't "review" a broadcast > Poor presentation of complex concepts > No visual component (e.g., schematics, maps, photos) > Synchronous form requires system-wide coordination (e.g., announcements, class schedules, etc.)
	Audiotape	<ul style="list-style-type: none"> > Wide adoption, low-cost hardware > Information persists (tape may be reviewed many times) > Moderate production and reproduction costs > Highly accessible > Supports asynchronous presentation > Sequential structure guides learner 	<ul style="list-style-type: none"> > Poor presentation of complex concepts > Medium is not durable, especially in extreme circumstances > Studio recordings not easily modifiable or well-suited for current events

MODE	INSTRUMENT	AFFORDANCES	LIMITATIONS
Audio (continued)	Digital audio (Web- and CD-based)	<ul style="list-style-type: none"> > Can present contemporary and topical information easily (Web) > Information is durable (e.g., it can be reviewed many times) > Medium is durable > Moderate production costs > Low reproduction costs; easily scaled > Easily catalogued and reused (by developers and users) > Can be indexed or catalogued to enable nonsequential access 	<ul style="list-style-type: none"> > Requires robust PC and/or high-speed Internet connection > High storage "overhead" (in terms of hard drive capacity) > May not support presentation of complex concepts
Video	Analog	<ul style="list-style-type: none"> > Highly accessible and potentially engaging format (no literacy skills required) > Sequential structure guides learner > Concrete, specific, detailed information > Appropriate for learners with "visual intelligence" > Engaging and motivating for many learners > Moderate hardware costs 	<ul style="list-style-type: none"> > High production costs; moderate reproduction costs > Complex information may be difficult to present effectively > Information may prove difficult for some learners to analyze/synthesize
	Broadcast	<ul style="list-style-type: none"> > Same as analog video > Can present contemporary or topical information easily 	<ul style="list-style-type: none"> > Same as analog video; however, costs may be higher
	Digital (Web- and CD-based)	<ul style="list-style-type: none"> > Same as analog video > Can present contemporary or topical information easily > Easily catalogued and reused (by developers and users) > Can be indexed or catalogued to enable nonsequential access > NOTE: "moderate hardware costs" is not applicable 	<ul style="list-style-type: none"> > Same as analog video > Requires robust PC and/or high-speed Internet connection > High storage "overhead" (in terms of hard drive capacity)
Simulations	Interactive (Web- and CD-based)	<ul style="list-style-type: none"> > Same as noninteractive simulations > Active-learning characteristics engage learners via several paths to reinforce concepts > Quantitative elements are supported (and reinforce conceptual learning) > Engaging and motivating for many learners > Can support assessment 	<ul style="list-style-type: none"> > Requires robust PC and/or high-speed Internet connection > Potential additional system requirements (e.g., Java, plug-ins)

Advantages of multimedia

Some of the advantages that can be listed for the use of multimedia, according to the authors of the above report, are as follows:

"Multimedia can:

- enhance learning in different locations and institutions of diverse quality;
- present opportunities to students working at different rates and levels;
- provide (tirelessly, without holding up other students) repetition when repetition is warranted to reinforce skills and learning; and
- compensate, in the short term, for high student populations and limited numbers of trained and experienced teachers – in combination with robust teacher development initiatives and improvements in teachers' working conditions.

Updates to contentware can ensure that teachers and students encounter and have the chance to work with current and authentic sources. Such encounters tie learning to the most important events of our time and underscore the general idea that knowledge itself is not fixed and finalised, that there is a universe of discoveries and a library of analyses that can be available to students."

To what extent these advantages of multimedia are relevant to language teaching and learning will be discussed later in this section.

The use of technological resources in FL learning

This listing follows that given by Herington (2002) and is reproduced here with the kind permission of the author.

What kind of technology is currently used in FL teaching and learning?

Audio devices: CD, Web, audiocassette recorder. These continue to be the most popular and most widely used devices appropriated by modern language teachers.

Video: DVD, cassette, Web, laserdisc, camera. The use of moving images linked to sound provides learners with exposure to all important elements of spoken communication: gestures, proxemics, pronunciation, intonation, all embedded in natural, cultural contexts. Thanks to modern technology, scenes can be located, isolated and replayed at random. There is a wealth of literature suggesting how to exploit film / video sequences meaningfully. Different forms of visual support can now be offered (e.g. optional sub-titles in the mother tongue or target language to assist understanding and facilitate access to the language).

Television: Both satellite and terrestrial television programmes offer cheap access to contemporary, authentic and potentially culturally rich programmes for the language learner. The immediacy of current affairs programmes ensures that learners' exposure to the language is up-to-date and embedded in the real world of native speakers. Coupled to adequate recording equipment, this medium also offers the advantages of the video devices mentioned above. The 1970s saw a blossoming of integrated multiple-media programmes like *Follow Me*, which combined radio and television broadcasts with direct teaching supported by print and audio visual materials. Programmes of this nature are suited for mass audiences (*Follow Me* was watched regularly by over 9 million Chinese viewers in the early 1980s). A number of broadcasting companies still produce broadcasts, which are at their most effective when combined with face-to-face courses in educational institutions. Particularly useful for reaching sectors of the population who might not normally think of taking up language learning, but who might be wooed by attractive "taster" courses highlighting interesting or exciting elements in the target culture.

Telephone: Because of the relatively poor quality of analogue transmissions this medium has not been widely used for language teaching. Its principal uses have been limited to supplementary tutoring for those engaged in distance education. However, with the advent of digital quality and lower connection costs, there is now considerable potential for its extended use - including the possibility of conference calls.

Computers: With the introduction of the multimedia computer, the learner and teacher have at their disposal an instrument which can combine all the advantages of the above-mentioned media in a compact and easily accessible form. The computer may be used as a **local machine** (stand-alone) or within a network. Computer Assisted Language Learning (CALL) software, CD-ROMs, and office software applications have become commonplace in many teaching / learning environments and the case studies in Section 2 illustrate how teachers throughout Europe are making use of them. An inventory of current CALL software, including teacher evaluations of their usefulness / efficiency can

be seen at the **ICT4LT** and **GrazVoll** websites, which also give links to other relevant sites.

Internet: Extensive and profitable use is now being made by many language teachers and learners of email, the World Wide Web, text, audio and video conferencing.

Why use technology with language learners?

The chief reasons for using technology can be summed up as follows. Technology facilitates:

- exposure to 'authentic' language
- access to wider sources of information and varieties of language
- opportunities to communicate with the outside world
- a learner-centred approach
- development of learner autonomy

Integration with the course syllabus

How and when the new media should be used requires careful planning and reflection. In the initial stages there is a danger that a fascination with new technology may lead to aberrations in terms of time devoted or assigned to particular tasks which seem more attractive when tackled through the new media. Consideration should be given to the fact that, because the new media can perform certain tasks, those tasks need not and sometimes should not be relegated to machines. There is an inherent danger of wishing to use the new tools for what we are already able to do without them, failing to ask ourselves what the added value of the use of the new media might be. In short, there must be a real reason for using technology in language learning contexts.

Selection of materials

It is the teacher's / instructor's task to ensure that learners do not, for example, just surf the Web at random, but by being directed within a specifically structured task, obtain the maximum benefit possible from time spent online (Vogel 2001). Also, the selection of software and related activities must be taken carefully into consideration before they are deployed in the classroom. This demands a high level of computer literacy from a teacher, who must learn and understand the principles of courseware design and the relevance of different programs to the task in hand. Matrices which guide language teachers in the selection of materials and programs are available on both the **ICT4LT** and **GrazVoll** sites.

Classroom dynamics

As with other activities and tasks in the language classroom, the use of different media needs to be planned in terms of the relative effectiveness of the means. Research has shown that joint use of media, where collaborative tasks are set for learners to act and research jointly, is much more effective than drill-like exercises performed in isolation. Using the computer laboratory, where each learner has access to a computer for language exercises, may prove to be counter-productive if not linked to tasks which require communication within a group of learners or with others outside the class.

Training

Training is a key factor in the effective use of the new media, where **learning to use** must give way to **using to learn**. It is above all the teacher/trainer who needs not only to be completely familiar with the hardware and programs available, but also to know

exactly what the potential of the different media at her disposal is. Apart from the obvious need for teachers to become computer literate and have the confidence to use the available technology adequately, major changes in learning/teaching paradigms are called for. They need to learn how to evaluate and select learning resources and how to solve practical and theoretical problems linked to the introduction of new media. As mentioned above, the integration of technology into the syllabus and the successful planning of lessons confront teachers with new challenges. Learners, too, need skills training so that they are increasingly able to work autonomously, making efficient use of the higher order skills, which go hand-in-hand with effective computer literacy. The new literacies linked to ICT (cultural, digital, critical, visual, etc.) must be mastered by teacher and learner alike if they are to benefit fully from the new tools and procedures at their disposal.

Support

Increasing dependence on machines and programs means that skilled technicians are required to service and maintain them. Few people nowadays think in terms of repairing or servicing their motor vehicles themselves, yet a consciousness of the need to service and update new technology once installed is sorely lacking in most educational institutions. Once installed, equipment needs to be updated on a regular basis; new software must be purchased and installed. This all implies a commitment on the part of management to technology and to allotting adequate financial and personnel resources to the maintenance of the system. A commitment to the teaching staff, too, is required in terms of providing them with opportunities for sharing of ideas, jointly planning lessons and materials and ongoing training.

Classroom dynamics

Given the new roles for teachers and learners outlined above, it is clear that the role relationships between them must change if both are to benefit from the new learning/teaching paradigms.

The role of the teacher changes to being a facilitator

The teacher is no longer the sole source of knowledge and information about the language, nor is s/he the sole provider of texts and exposure to target language materials. S/he will need to apply (new found) skills to guiding learners through the labyrinths and excesses of the information society to a principled approach to learning which can be appropriated by learners to help them on the path to self-determined acquisition of language skills and knowledge. The most successful teacher in an ICT rich environment is a good learner.

The role of the student changes to being an active participant

The learner is no longer viewed as a receptacle into which the teacher pours wisdom and knowledge, but as an agent of change, reacting and interacting with the mass of materials that s/he encounters.

There is closer interaction between teacher and students

The classroom situation begins to reflect that encountered in modern companies, which have adopted flat, non-hierarchical structures where maximum benefit for all is to be reaped by pooling knowledge and resources in informal exchanges.

Prerequisites for successful integration of ICT

The use of technology in the language classroom occurs successfully when:

- there is a real reason for using it;
- alternative activities are to hand, if problems arise;
- training and support is given to students;
- use of technology is integrated and ongoing;
- the activities are stimulating and worthwhile to the learners;
- communication is taking place between learners;
- learners are asked to use language in meaningful ways.

Seven ways in which ICT is used in FLT & FLL

1. Presentation

Text-based materials and audio video or materials may be used to present or recycle new language to learners:

- Text-based material on the Web or on CD-ROM, e.g. *Lire Français*:
<http://www.lire-francais.com>
- Audio recordings with supporting text on the Web or on CD-ROM, e.g. *Randall's ESL Cyber Listening Lab* (<http://www.esl-lab.com>), which contains a variety of listening quizzes, such as airport announcements:
<http://www.esl-lab.com/airport/airportrd1.htm>
- Video-recordings with supporting text on the Web or on CD-ROM, e.g. *Funambule*: <http://www.funambule.com/cgi-bin/tv5.asp>
Deutsche Welle: <http://dw-world.de>
The *LINC* series of CD-ROMS (University of Antwerp):
<http://www.camsoftpartners.co.uk/linc.htm>
- *PowerPoint* presentations on an electronic whiteboard. Ideas on using *PowerPoint* for whole-class teaching may be found at the **ICT4LT** website at the following locations:
Module 1.3, Section 7: http://www.ict4lt.org/en/en_mod1-3.htm
Module 1.4, Section 4: http://www.ict4lt.org/en/en_mod1-4.htm

2. Practice

A wide range of different exercise types are possible with ICT, incorporating the presentation of stimuli in varying combinations of text, audio and video materials, format. ICT also offers the possibility of analysing of learners' responses, with appropriate feedback and branching:

e.g.

- Grammar exercises, e.g. *CLEF* (Computer Assisted Learning Exercises for French):
<http://www.camsoftpartners.co.uk/clef.htm>

Listening and pronunciation

- Listen, repeat and compare, e.g.
The TELL Consortium *Encounters* series of CD-ROMs:
<http://www.camsoftpartners.co.uk/encounters.htm>
- Automatic Speech Recognition, e.g. Auralog's *Tell Me More* CD-ROM:
<http://www.camsoftpartners.co.uk/tmm.htm>

Authoring

As well as purchasing ready-made materials, teachers may wish to create their own exercise materials using a variety of **authoring tools**. See Module 2.5 at the **ICT4LT** website, *Introduction to CALL authoring programs*:

http://www.ict4lt.org/en/en_mod2-5.htm

Examples of authoring tools include:

- Camssoft's *Fun with Texts* and *GapKit* packages:
<http://www.camssoftpartners.co.uk/fwt.htm>
<http://www.camssoftpartners.co.uk/gapkit.htm>
- Wida Software's multi-purpose package, *The Authoring Suite*:
<http://www.wida.co.uk>
- *Hot Potatoes*, a popular multi-purpose Web-based authoring tool, developed at the University of Victoria, Canada:
<http://web.uvic.ca/hrd/halfbaked>
Samples of exercises developed with *Hot Potatoes* can be found at:
http://www.ecml.at/projects/voll/Graz_2001/data_driven_learning/tools/index.htm
- *MALTED* (Multimedia Authoring for Language Teaching and Educational Development) – an EC-funded project:
<http://www.malted.com>
and
<http://malted.cnice.mecd.es> from which the *MALTED* software can be downloaded.
- *I4LL Authoring Tool* (Integrated Internet-based Interactive Independent Language Learning). An eLearning environment which is being developed at the Language Centre of the University of Ghent with the aid of EC funding:
<http://i4ll.rug.ac.be>

4. Computer Aided Assessment (CAA)

Computer Aided Assessment (CAA) is playing an increasingly important role in FL teaching and learning. Module 4.1 at the **ICT4LT** website covers the subject in detail:
http://www.ict4lt.org/en/en_mod4-1.htm

A number of CAA programs are available both commercially and publicly:

- Web-based testing systems, e.g. *WELTS*, a testing system created as part of the WELL Project:
<http://www.well.ac.uk>
<http://www.well.ac.uk/languageexercises>
- *CLIC*: a freeware application, developed by Francesc Busquets, for the development of multimedia activities for language learners:
<http://www.xtec.es/recursos/clic/eng/index.htm>
- *Dialang*:
<http://www.dialang.org>
- *Question Mark Perception*:
<http://www.qmark.com>

5. Reference

CD-ROMs and the Web provide language learners with a source of information for language learning tasks and activities.

- Online dictionaries, e.g. *Cambridge Dictionaries Online*:
<http://www.dictionary.cambridge.org>
- *Link Everything Online*:
<http://dict.leo.org>

- *Canoo Net, Die neuen Regeln der Rechtschreibung:*
<http://www.canoo.net/services/GermanSpellingRules/ueberblick/index.html>
- Encyclopaedias on CD-ROM, e.g. *Encarta*
- Newspapers and magazines on the Web:
Kidon Media-Link: <http://www.kidon.com/media-link/index.shtml>
- Concordancing tools. For a comprehensive survey of concordancing tools and resources, see:
http://www.ict4lt.org/en/en_mod2-4.htm
http://www.ecml.at/projects/voll/graz_2002/ddrivenlrning/authoringtools/index.htm

6. Publishing

A number of tools exist to help learners work on their writing / publishing collaboratively, often linked in a local area network. Language learners use ICT to help them publish their work in the following ways:

- Word-processors and Desk Top Publishing (DTP) software
- Audio recording and editing tools to record interviews, discussions, etc.
- Digital cameras and camcorders to record presentations, interviews, role-plays
- *PowerPoint* as an aid to public presentations.
- Web pages using Web authoring tools, e.g. *Front Page, Dreamweaver*.

7. Communication

Language learners and teachers can use technology to help them communicate with one another:

- Email allows language learners to communicate with “Web pals” in other countries. See the following websites:
European Schoolnet: http://www.eun.org/eun.org2/eun/en/index_eun.html
Windows on the World: <http://www.wotw.org.uk>
The Hands On Europe project: <http://www.pioneer.cwc.net/Home.htm>
Das Bild der Anderen project: <http://www.bild-online.dk>
- Tandem Learning. See the website of the International Tandem Network at the University of Bochum:
<http://www.slf.ruhr-uni-bochum.de/email/idxeng00.html>
- Computer mediated discussion, e.g.
Linguanet Forum: <http://www.mailbase.org.uk/lists/linguanet-forum>
- Web-based learning environments, e.g.
NetLearn: <http://www.nll.co.uk>
Merlin: <http://www.hull.ac.uk/merlin>
- Audioconferencing (synchronous and asynchronous), e.g. using the *Wimba* software environment:
<http://www.wimba.com>

- Videoconferencing:
Robert O'Dowd, *Videoconferencing for foreign language learning*:
<http://www.geocities.com/Athens/Rhodes/8247/vcing.html>
- MOOs: <http://www.well.ac.uk/wellclas/moo/moo.htm>

8. Simulations

The computer can act as a stimulus which generates analysis, critical thinking, discussion and writing. Programs which include simulations are especially effective as stimuli. Examples of language learning tasks which "simulate" real world tasks are:

- WebQuests:
The *WebQuest* page: <http://webquest.sdsu.edu>
LanguageQuest:
http://www.ecml.at/projects/voll/graz_2002/pthinking/marianewebquest/menu_webquest.htm
Treasure Hunt: <http://www.well.ac.uk/wellproj/workshp1/treasure.htm>
TalenQuest: <http://www.talenquest.nl>
- Action Mazes:
<http://web.uvic.ca/hrd/quandary>
- Adventure games:
Who is Oscar Lake?
<http://www.languagepub.com>
- *Sunpower (Communication Strategies for Business Purposes)*:
<http://www.sunpower.fh-koeln.de/BEENGL.HTM>
- *Expodisc (Simulation of a business trip to Spain)*:
<http://www.camsoftpartners.co.uk/expodisc.htm>
- "Real-life" simulations:
A la rencontre de Philippe: <http://web.mit.edu/fll/www/projects/Philippe.html>
- Videoconferencing can be used to simulate real world tasks, e.g. negotiations in business English:
Robert O'Dowd, *Videoconferencing for foreign language learning*:
<http://www.geocities.com/Athens/Rhodes/8247/vcing.html>

Computer Assisted Language Learning

Warschauer (1996) summarises the main phases of Computer Assisted Language Learning (CALL) as follows:

- i. Behaviouristic
- ii. Communicative
- iii. Constructivist/ Integrative

Each of the above stages corresponds to advances in technology and to pedagogical approaches.

Behaviouristic

Behaviouristic CALL was conceived in the 1950s and was informed by the behaviouristic learning model. It featured repetitive language drills, referred to as drill-and-practice (or, pejoratively, as “drill-and-kill”). In this paradigm, the computer was viewed as a mechanical tutor which never grew tired or judgmental and allowed students to work at an individual pace. It was used chiefly in the 1960s and 1970s.

Communicative

Communicative CALL appeared emerged in the late 1970s and early 1980s when behaviouristic approaches to language teaching were being rejected at both the theoretical and pedagogical level. It was at a time when new personal computers were creating greater possibilities for individual work. Proponents of communicative CALL stressed that computer-based activities should focus more on using forms than on the forms themselves, teach grammar implicitly rather than explicitly, allow and encourage students to generate original utterances rather than just manipulate prefabricated language, and use the target language predominantly or even exclusively. Communicative CALL corresponded to cognitive theories, which stressed that learning was a process of discovery, expression, and development. Popular CALL software developed in this period included text reconstruction programs (which allowed students working alone or in groups to rearrange words and texts to discover patterns of language and meaning) and simulations (which stimulated discussion and discovery among students working in pairs or groups). For many proponents of communicative CALL, the focus was not so much on what students did with the machine, but rather what they with each other while working at the computer.

Constructivist / Integrative

Communicative CALL also began to be criticised in the late 1980s. And, in the early 1990s, critics pointed out that the computer was still being used in an ad hoc and disconnected fashion and thus “finds itself making a greater contribution to marginal rather than central elements” of the language learning process (Kenning & Kenning, 1990:90). This corresponded to a broader reassessment of communicative language teaching theory and practice. Many teachers were moving away from a cognitive view of communicative teaching to a more social or socio-cognitive view, which placed greater emphasis on language use in authentic social contexts. Task-based, project-based, and content-based approaches all sought to integrate learners in authentic environments, and also to integrate the various skills of language learning and use. This led to a new perspective on technology and language learning, which has been termed **integrative CALL** (Warschauer 1996), a perspective which seeks both to integrate various skills (e.g., listening, speaking, reading, and writing) and also integrate technology more fully into the language learning process. In integrative approaches, students learn to use a variety of technological tools as an ongoing process of language learning and use, rather than

visiting the computer lab on a once a week basis for isolated exercises (whether the exercises be behaviouristic or communicative).

The assumption of **cognitive theory** is that teachers do not pour information from their store into the heads of waiting and willing students, but that students actively interpret and organise the information they are given, fitting it into prior knowledge or revising prior knowledge in the light of what they have learned. They “construct” new knowledge based upon their prior learning and experience. Having and manipulating language data in multiple media provides learners with the raw material they can use to re-create the language for themselves, using their own organising schemes.

As a result of all these changes, the teacher has become a facilitator of learning rather than the font of wisdom, and will find, select, and offer information in a variety of ways on the basis of what their students must learn in order to meet diverse needs.

Web-based learning

A study of Web-based language learning materials was conducted by the ICC within the context of a report on materials available for language teaching and learning in Europe for the Directorate General of Education and Culture of the European Commission in 2001. The conclusions drawn from the study of materials were as follows:

1. Web-based language learning materials should offer more than simple online feedback on **correct or incorrect input** (similar to traditional computer assisted exercises on CD-ROM), but rather offer a platform for communication and interaction within a virtual, tele-co-operative classroom. The features of such a learning environment need to be defined, also in view of a possible link between learning in a self-study and tele-co-operative mode, net meetings, and contact lessons and meetings in a real classroom.

A sample of good practice is the Net Languages platform (<http://www.netlanguages.com>) developed for EFL by International House, claiming to be the world’s leading virtual language school

2. It is strongly recommended to create a platform offering links to providers of online language classes and learning materials. In addition, potential learners could be provided with a quality guide, outlining salient points to look for before enrolling for a class of this nature like the one provided on the ECML website under the ICT in VOLL pages: <http://www.ecml.at/projects/voll>
3. As **very few materials were found with regard to LWULT languages**, projects in this area would be very useful. Here, the development of a non-language specific platform with authoring options might be a promising venture, focusing on the development of a framework for such a learning environment.
4. As managing a virtual learning environment also requires special qualifications and skills on the part of the teacher, training measures are to be encouraged. With regard to this, the **WELL Project** (Web Enhanced Language Learning) or the **ICT4LT Project** which has developed a substantial set of Web-based training materials in Information and Communications Technology for Language Teachers, could serve as a examples of good practice. The WELL Project in particular aims to promote wider awareness and more effective use of Web resources for modern language teaching. Despite the enthusiasm of a growing number of “digerati”, the majority of academics in language teaching have yet to discover what the Web and associated new technologies can offer. This project aims to provide a starting point for this discovery and also to act as a forum for the exchange of good practice amongst more advanced practitioners.

Section 2: Case studies

This section consists of over 20 case studies from eleven different countries exemplifying potentially interesting approaches to FL teaching and learning, quality innovation and examples of best practice. The transfer potential of each case study is outlined as well as the relevance of each case study to further developments in the field.

Rationale for the choice of case studies

In choosing the case studies of good practice, the following criteria were applied:

- all major educational sectors should be covered
- the use of a wide range of media should be documented
- the meaningful integration of different media should be illustrated
- case studies should be accessible and comprehensible to non-specialists
- cases should illustrate the use of media in a variety of contexts: from small group applications to programmes planned at a regional, national or European level
- examples should be taken from a wide range of EU Member States

The following table gives an overview of the case studies presented:

Primary	Lower Secondary	Upper Secondary	Higher Education
Sollars, Camilleri	Steinmetz	Davies	Rüschoff
	(Flamini)	Moro	Moro
	Vidal	Vidal, (Bornhorst)	
Countries covered:			
Malta, (Europe)	Denmark, Italy, Spain	UK, France, NL, (Germany)	Germany, France
Vocational	Special Needs	Teacher Training	Adult & Continuing
Fitzpatrick	Davies	Rüschoff	Steinmetz
Myklebust		Lund	Bornhorst
Moro		Filipe	
Mittendorfer			
Driessen		Davies, Flamini	
Countries covered:			
Europe, Norway, France, Austria	United Kingdom	Germany, Norway, Portugal, UK, Italy	Denmark, Germany

Transversal applications:

Web literacy, LanguageQuest, a WebQuest for modern languages

Overview of case studies

This introductory section presents in brief outline the content of the case studies in order to help readers to decide which seem of particular interest or relevant to their situations, before proceeding to read the case studies in detail. In the electronic version of the report, links are provided from these overviews to each case study.

Survey: The Impact of National Policy on ICT in Foreign language Teaching: the UK Case

Graham Davies, United Kingdom: NOF / CILT study

Professor Davies' contribution provides a wide-ranging overview of the current situation of FL teaching and learning in England and Wales with particular reference to ICT. In addition, he presents four case studies from different educational sectors (lower and upper secondary, a technical college, a languages colleges and a special needs school). He refers to European initiatives (e.g. European Online Teacher Training materials) which are of ongoing interest and which represent projects of the type which merit further support and funding from the European Commission. Links are given to further case studies available online. The CILT/NOF case study related to INSET training highlights the importance of providing subject specific introductions to the use of ICT in educational settings.

The Impact of the Use of New Information Technologies and the Internet on the Teaching of Foreign Languages and on the Role of Teachers of a Foreign Language in Germany

Prof. Dr. Bernd Rüschoff & Yvonne Breyer, University of Essen, Germany

This contribution gives a comprehensive account of the "state of the art" in Germany with direct reference to the 2002 report "*Computer usage and New Media at Universities*" conducted and released by the Federal Ministry of Education and Research which evaluated the general implementation of computers in teaching and studying at German universities. While computers and Internet access have become widely available, the report clearly demonstrated that computer literacy and application of new media in the different courses of study vary considerably. Teacher training and language studies degrees in general often show little integration of computers in the courses themselves. Students often only gain basic computer skills and do not consider the use of ICT as absolutely relevant in teaching.

The authors describe projects, actions and research designed to improve the situation in the area of ICT and FLT. Selected sections appear below in the case studies, chiefly under the rubric of teacher training.

Large scale multimedia courses

"*redaktion D – Das Multimedia-Paket Deutsch*", the case presented by Josef Bornhorst of the Goethe Institute, Germany is a multimedia language course for the teaching of German as a foreign language developed by the Goethe Institute in 2002, using almost all multimedia tools available. It is included in the list of case studies to illustrate how "state of the art" multimedia courses, integrating all media (including Internet and chat rooms), are now being produced.

Primary Education

Valerie Sollars, Mario Camilleri, University of Malta, et al., ICT and Young Language Learners

This "Stars" project is part of the European Centre for Modern Languages medium-term programme 200-2003. It provides an excellent example of European co-operation in the

field of early language learning and the use of information and communications technologies.

Young learners, 7-10 year-olds, are encouraged to communicate with their peers, using an electronic platform designed specifically for exchange. The contribution is divided into three parts: a workshop description, giving the rationale of the project, a power point presentation outlining theoretical considerations, and workshop report providing complete details. It demonstrates how effective and motivating international communication can be at this age, using simple tools and a straightforward platform.

Lower Secondary Education

Graham Davies, United Kingdom: Cox Green School, Maidenhead, a standard comprehensive school

This study demonstrates the value of pupil involvement in a project which demonstrably improved examination results as a result of deploying ICT. Here, students were steered towards more independent learning skills with software which facilitated different activities with the same source material, allowing for effortless differentiation, with students actively tackling increasingly challenging levels of competence.

It shows how the work carried out in the language centre was tied in closely with the work done in the "normal" foreign language classroom.

The project convinced less than enthusiastic staff of the advantages of using ICT as an integral part of their teaching.

Aase Steinmetz, Denmark: ARKINO: Architecture in Nordic Countries, or, Living in the North

This case study illustrates the use of co-operative platforms in secondary education where the emphasis is on collaborative efforts across borders in content driven learning.

ARKINO was implemented in the ninth or tenth form with pupils in Norway, Finland and Denmark. The pupils studied and reported on three objects: their own kind of dwelling, a building of their own choice in the neighbourhood and the house of their dreams. The study involved cross-curricula planning and the subjects involved were mother tongue, science, economics, ICT and, in some instances, English.

The idea of exchanging information of a local nature has a European dimension and this model can easily be transferred to children of all ages and, provided that the necessary adjustments are made, it can also be used in other educational sectors (e.g. adult and continuing education).

Francesca Vidal, CRLE, Catalonia, Spain: IES Manolo Hugué. Caldes de Montbui

This case describes the situation in a programme for Secondary and Post-secondary (12-18) education, where state-of-the-art multimedia computers with Internet access are used. It shows how motivation is raised in writing tasks completion where learning tasks have become more meaningful as students' outcomes are published on the Web for a wider audience. It represents a prime example of authentic and immediate communication with groups of students of English abroad. The report traces the increased self-esteem teachers have felt as a result of using an approach fully appreciated by pupils because it allowed them to use tools that, on one hand, belong to their culture and, on the other, will be indispensable in their life. Further, the introduction of the new media fostered increased teamwork amongst teachers, leading to considerable innovation in teaching approach.

Francesca Vidal, CRLE, Catalonia, Spain: IES Ronda. Lleida

This study focuses on classroom oral presentation of project outcomes with the support of ICT tools, culminating in full publication on the Web. Highlights are authentic and immediate communication with groups of students of English, French and German abroad to carry out joint projects.

It demonstrates how the high level achieved in the outcomes of students' work has motivated teachers to continuously update their ICT skills.

In addition, it shows how ICT has made the switch towards a project-based approach much easier: instead of being the only providers of information and material, teachers can focus now much more on giving clues concerning group organisation, project development and evaluation of process and procedure followed. All qualities demanded in "The New Role of the Teacher".

Francesca Vidal, CRLE, Catalonia, Spain: IES La Serreta. Rubí

This study shows how students' and teachers' self-esteem has been raised by increasing their Web literacy in general. It illustrates how learners have become more autonomous and have developed information handling skills, including a more critical attitude towards specific information as well as towards their own productions (the "new literacies" referred to above in the body of this report).

It further shows how, within a school year, the conviction of the teacher originally involved concerning the great potential that ICT tools could have, and demonstrated in the results of the project, has resulted in the creation of an "ICT expert" from a complete beginner.

Enrica Flamini, Ministry of Education, Italy: CLIL in Lombardia

CLIL in Lombardia describes the pairing of foreign language teachers with subject teachers, using a collaborative learning/teaching environment (First Class). This illustrates the integration of ICT into teaching and learning - a "learning by doing and reflecting" approach.

The practical efficacy of synergies between language teachers and subject teachers has been described in detail in the parallel study to the present one edited by D. Marsh:

CLIL / EMILE: The European dimension – Actions, Trends, and Foresight Potential (Jyväskylä, 2002)

Upper Secondary Education

Graham Davies, UK: St George's School, Sleaford, a school with Technology College status

This study describes an in-house networked language centre with broadband link to a county-wide network which utilises streamed in-house video clips, applications software, commercially produced packages and Web technology with full integration of ICT in all language teaching classes. It shows how these applications extend students' learning styles and promote more independent learning.

It also demonstrates how teaching staff who have been actively involved in creating online materials for modern languages, encouraged and supported by ICT support staff, are encouraged to experiment with Internet technology to create a new brand of teaching materials.

Graham Davies, UK: Ashcombe School, Dorking, a school with Language College status

This study emphasises the use of ICT as a means of enabling students to practise key skills, especially listening and speaking, where there is a vision of ICT as an entitlement

for all: curriculum entitlement embedded in schemes of work with regular timetabled access for language learners

Here, the key benefit of technology is seen as allowing the learner to have independent control of access to good 'models'. Multimedia CD-ROMs have had a positive impact on the development of pupils' speaking skills.

The study demonstrates that a strong commitment to ICT, tight management, technician support and recognition of the need for staff training are the recipe for success. At Ashcombe School, managers, staff and pupils understand the curriculum, the teaching and learning potential of technology, and share a common approach with staff training as a high priority.

It shows how trained teachers now exploit the new teaching and learning methods available for use in an ICT environment, rather than falling into the trap of trying to replicate what can be done in the classroom.

Bernard Moro: Collective Viewing in Class (whole class use of WWW):

This contribution illustrates the use of ICT in the classroom using a very powerful, but easy-to-use tool, where the lesson is largely learner-driven.

This study shows the effectiveness of the model with French lycée students preparing for the ES baccalauréat (with special emphasis on Economics) who are, traditionally, not the most highly motivated category of language students. The application of the approach to university students whose main subjects are Economy, Law, History, Philosophy or Geography as well as university teachers of Sociology is also illustrated.

Here, ICT is constantly in use: a laptop is used as an electronic board with Word for writing, the facilities of Word to help with writing, and the Internet for direct access to Web resources. In addition, recourse is made to dictionaries, encyclopaedias and other reference tools on the hard disk or on the Web as and when required, illustrating and using the vast resources of information available through the new media.

Higher Education

Bernard Moro, University of Grenoble, France: Website and platform complement each other

This is an example of a collaborative environment for tutoring and correcting work using an electronic platform as a space for experimenting with writing competence with university students whose main subjects are Economy, Law, History, Philosophy or Geography.

The study illustrates the deployment of a Web-based, virtual language centre (<http://66.36.161.22>) designed by a language teacher using the "QuickPlace" platform, implemented on a university server. The language website provides finalised resources helping students work whilst the platform represents a collaborative environment for tutoring and correcting work as well as a space for experimenting with writing competence.

Bernd Rüschoff/ Yvonne Breyer, University of Essen, Germany: Linguistics Online

(Integration of ICT in EFL teacher training at German Universities)

LINGUISTICS ONLINE (<http://www.linguistics-online.de>) exemplifies the need for more flexible forms of teaching and learning in completely virtual or partly virtual (blended) learning modes. The way this operative platform, which is NON-EXPERIMENTAL is already widely in use and fully integrated into regular course calendars at the partner universities (and beyond) is exemplary for others working in the field of developing virtual learning environments.

The approach is task-based and problem-oriented where students research and create their own units, (constructivist approach). They learn to use ICT as a natural component of their everyday learning process and acquire high-profile ICT skills while studying a subject of their choice. Furthermore, as a complement to the case studies cited by Rüschoff & Breyer, referred to later on in this report, the LINGUISTICS ONLINE case study is of particular relevance with regard to efforts required for improving computer literacy and developing the necessary skills in future generations of language teachers based on a concept which follows the assumptions that teachers often teach much in the same way as they have been taught and trained themselves.

Vocational Education

Bernard Moro, University of Grenoble, France: Target Language Lexis for VOLL students

This study shows what powerful tools are at the disposal of students needing to research the net for specialist vocabulary/ subject matter. It addresses the problem where students do not have the vocabulary required to deal with their own subject in the target language and the general language teacher has no command of the specific vocabulary required in either the mother tongue or in the target language.

It illustrates clearly the concept of collaborative efforts between teacher and learner, where both bring their own expertise into play. It allows the language teacher to use meaningful didactic approaches instead of vocabulary knowledge whereas learners can apply their subject knowledge to the research, explaining concepts to the teacher as they go along. An additional bonus is that it provides additional preparation of learners in the use of tools that are becoming increasingly common in real business / work environments.

Bernard Moro: How platforms can change curricular engineering: a case in point

This shows how a virtual platform can provide ongoing support for VOLL students who have to leave half way through (language) studies for job placements. Third-year students of town-planning and development management have to spend 6 months on a placement far from the teaching institution, and cannot maintain their competence in the target language without support.

All the collaborative facilities on the platform (discussion areas, chat, assignments, etc.) are employed by the students to read courses, take assignments, deliver papers, have their papers corrected, interact with their tutor online (asynchronous / synchronous) and interact with other students. The teacher uses the platform to evaluate and correct the students' work.

Thus, the platform allows the language teacher to keep in contact with students, despite distance. Job placements are part and parcel of many courses of studies and this situation requires viable solutions for language maintenance. ICT is an obvious answer in a perspective of life-long learning. Such solutions allow people at the workplace to continue access to language tuition / learning on an ongoing basis.

Franz Mittendorfer, CEBS, Austria: PROMOTICS

This case highlights the advantages to be gained in Vocationally Oriented Language Learning from the use of specially designed CALL materials.

It illustrates the integration of the media into an overall introduction to business life via a virtual company with sample communication tasks. Two approaches are taken, one consists of presentation and first contact between the virtual companies while the second phase provides for individual exploration, practice and task-solving.

This type of program provides increased authenticity and motivation through exploratory learning. ICT furnishes a rich learning environment, starting from input common to all

members of the group and branching out to individual exploration where learners set out to explore and fact-find on pre-selected websites, based on clearly defined tasks.

Special Needs Education

Graham Davies, UK: an urban secondary school in Scotland

The author of the report shows how ICT offers a range of possibilities for children with Special Educational Needs. He refers to Wilson (2002) who describes a number of case studies at his website: <http://www.tomwilson.com/david/case>. A select bibliography is also offered at: <http://www.tomwilson.com/david/mfl/biblio.doc>

The case study is based on data collected in an urban secondary school in Scotland. All of the pupils in the special needs group described would have been withdrawn from modern languages prior to this year. The case illustrates how ICT can provide extra stimulation enabling all of the students to reach the end of a course of studies with one prescribed unit successfully completed

Teacher Training

Andreas Lund: Teacher Education in Transition: The Norwegian PLUTO Project

This study highlights changing parameters in working life and underlines the fact that different learning styles require different approaches to teacher training. The author describes how trainee language teachers are taught to operate within a new environment using appropriate pedagogical approaches and devices. It is basically a task-based approach which uses portfolio assessment rather than more traditional testing / evaluation techniques.

The PLUTO case study combines institutional change with tangible examples of such change. The field of technology and (language) learning is strewn with abundant examples of classroom practices or organisational implementation of ICT, but the two aspects are rarely addressed simultaneously. PLUTO illustrates that, for institutional change to be sustainable, the practices within the institution undergoing change must be infused with technologies. Changes on administrative and organisational levels alone are not enough. While descriptions of institutional change may be said to represent a horizontal aspect of implementation of ICT, the examples that materialise provide a vertical, in-depth illustration of this process. The two dimensions are mutually constitutive and form a prerequisite, if changes are to last beyond a project period.

The case study illustrates, then, that ICT are not merely add-on tools, but that they carry properties and dimensions that can potentially reshape the way we approach teacher education.

Maria Jesus Filipe, Ministry of Education, Portugal: The Camões Virtual Centre (CVC)

The Camões Virtual Centre (CVC) is an Internet platform of the Instituto Camões targeted at students, teachers and other professional educators involved in teaching and learning Portuguese as a Foreign and Second Language, as well as all those who wish to further their knowledge of the Portuguese and lusophone cultures.

The Virtual Centre is divided into four different domains: "Learning Portuguese", "Portuguese Culture", "Portuguese Linguistics" and "Teaching Portuguese".

It is described here to demonstrate how interested teachers may gain access to ideas and information on one of the less widely taught and used languages of Europe by using the new technologies and achieving global reach. This case further illustrates how cultural institutes are contributing to the teaching of the language and culture of the LWUTL.

Bernd Rüschoff/ Yvonne Breyer, University of Essen, Germany

Professor Rüschoff provides an overview of ICT-initiatives related to the pre-service and in-service training of language teachers in Germany. While the first section reflects on general initiatives concerning ICT infrastructure in education, the second part provides several case studies on the use of ICT in in-service teacher training and at university level. The report finishes with a chapter on recommendations for the integration of ICT in the foreign language classroom. It highlights the use of the whole range of tools available from "data driven learning" to establishing and using platforms for collaborative learning. Part of a large-scale project "Linguistics on line", a Web-based introduction to linguistics for university students, financed by the German Federal Ministry of Education and Research, is described, outlining the impact of ICT on foreign language teaching.

The authors of the report on cases from Germany felt that it was necessary to provide samples for the three most pressing issues identified in Section 2 of the study, i.e. the teacher/learner role and integration of technical resources into learning & how this effects classroom dynamics in the context of new learning scenarios ("*Staging Foreign Language Learning*"), the kind of teacher training and the type of resources needed / facilitated by the new technologies ("*Staging Foreign Language Learning and Geh mit*"), to show how Web-based, virtual/blended learning can work.

Bernd Rüschoff/ Yvonne Breyer, University of Essen, Germany "Staging Foreign Language Learning (In-Service Teacher Training for secondary schools, vocational training, higher education and adult education)

This case study was chosen as an attempt to combine the development of samples of best practice AND the necessary steps for teacher training (in-service as well as initial). It is an EU project where direct implementation of innovative teaching/learning practices (also beyond the use of IT) at a grass-roots level is made possible. The scenarios have all been developed with transferability in mind; it has a clear focus on project-based and product oriented learning modes and attempts to find new organisational modes for learning. Thus, this project serves as a good example for other areas of language learning beyond the school context.

The "normal" teaching context and face-to-face situation is replaced by the staging of language. Furthermore, the application of new communication technology extends the learning within the classroom, which is motivating and stimulating. The ultimate aim is to provide integrated training for FL teachers to enable them to use ICT in a meaningful way in their classroom.

Bernd Rüschoff/ Yvonne Breyer, University of Essen, Germany "Geh mit" (German Hands-on Modern Information Technologies Teacher Training Scheme)

Geh mit serves as a model for the kind of Web-based resource and platform that is needed to enhance ICT-related teacher training. It is similar to the **TALLEN** project referred to in the main body of the report (see **Reference** section).

It is a Europe-wide initiative based in Greece; the aim is to produce a course programme - including the relevant materials - for the training of teachers of German as a Foreign Language where the main focus is the integration of ICT.

In this project teachers are given the opportunity to design a training programme that takes their needs into consideration and which addresses the main issues concerning the integration of ICT in the language teaching classroom.

Enrica Flamini, Ministry of Education, Italy: "Lingue 2000

This study gives an overview of the measures and actions that have been undertaken in Italy at a central level (Ministry of Education) to promote the use of ICT in FL teacher training from 1996/97.

"*Lingue 2000*" was a large scale, nation-wide initiative to improve the level of language learning in state schools in Italy. An important aspect of the project is the introduction of ICT both as a vehicle and means of training for the teachers involved as well as a useful tool for classroom teaching. The effectiveness of the study is reviewed critically, evaluating the impact achieved to date.

Adult & Continuing Education

Aase Steinmetz, Denmark: Simulations for language learners using a learning platform (TELSI)

The SIMULAB / TELSI series of project activities were awarded the European Label for Innovative Language Learning and Teaching in Norway in 1998 and in Denmark in 2001.

Several Internet-based platforms have been created in recent years, opening up enormous possibilities for the integration of cross-cultural communication in adult education. One of these platforms (TELSI), created with the support of the Telematics in Education & Training Programme, has been especially designed for activities based on the principles of Collaborative Learning (learning through group interaction, learning from discussion with peers, student autonomy, etc.)

SIMULAB and eCOLE (<http://www.statvoks.no/ecole>) provide practical examples of successfully conducted co-operative projects between adult learners in a number of European countries.

The models described are tools that can enable a holistic approach to Adult Education throughout Europe, by involving several subjects and disciplines in short duration activities at European level (the ACROSS concept) and motivate adults for creative writing, in their mother tongue and in other European languages (the WebSiteStory concept)

The underlying concept of these projects can be transferred to virtually any kind of project and be used by all European educational institutions.

Stig Myklebust, Folkeuniversitetet, Norway: AUTOLANGUES - Technical English, German and ICT for the automotive industry

AUTOLANGUES is a CD based course for operatives in the automotive industry. The project illustrates an effective synergy between CD-ROM based Vocationally Oriented Language Learning materials and Web-based tutoring.

AUTOLANGUES integrates ICT in language teaching classes, developing language skills as well as teaching the use of computers – which is becoming increasingly important within the car industry. Implementation has shown that it increases interest – participants clearly see the usefulness of improving their language skills while also becoming more familiar with the use of ICT. Navigation + links to visual objects are shown to enhance learning.

Anthony Fitzpatrick, ICC, Germany, et al.: ICT in VOLL IMPACT

This project, part of the European Centre for Modern Languages medium-term programme 200-2003, provides an example of European co-operation in the field of Vocationally Oriented Language Learning and the use of information and communications technologies. This series of workshops and related activities from September 2000 to September 2002 sets out to show how ICT and their multimedia applications can be established as an integral part of modern language curricula in vocationally oriented

education and training, and how they can encourage more flexible and accessible educational provision. The outcome is a comprehensive website that serves as a major virtual resource centre for VOLL-related use of ICT and can be accessed at <http://www.ecml.at/projects/voll>.

This case illustrates how productive joint workshops of this nature can be and underlines the importance of immediate publication, making results available to a much wider audience than only those who participated in the workshops.

Transversal applications

Many of the examples allocated to different educational sectors may be applied in other sectors than those under which they appear above, but some are more clearly relevant to a wide range of educational sectors and are thus listed here.

Marianne Driessen, Centre for the innovation of vocational training and adult education.(CINOP), Netherlands: LanguageQuest, a WebQuest for modern languages

A LanguageQuest (www.talenquest.nl) is a WebQuest (<http://webquest.sdsu.edu/>) that is designed specifically for learners of a modern language. It is characterised by being online, task-based, and having a simple and fixed structure.

The general concept of a WebQuest can be extremely useful and productive for language learning because the Internet provides unlimited resources of authentic language material, in written form, but also in audio and video format. Learners, once briefed, can work at their own level, pace and in their specific field of interest.

The challenge for the future is to teach teachers how to design effective LanguageQuests at various levels of language competencies and (vocational) contexts and also how to evaluate students who engage in LanguageQuests, in order to develop better criteria for the design and supervision.

This case study illustrates how guided, meaningful exploitation of the WWW can address specific needs in terms of language learning which cannot be satisfactorily dealt with in traditional teaching / learning materials. It also shows how the "real world" can be brought into and complement classroom activities.

Bernard Moro: Web literacy

Although this is not a case study in the strict sense of the word, this website, hosted by the European Centre for Modern Languages (ECML) at <http://www.ecml.at/projects/voll/literacy>, is a most useful introduction and overview related to the essential literacies mentioned several times in this report.

Using the Web efficiently implies acquiring a variety of competencies and strategies, as well as observing a number of unwritten rules. All of these can be referred to as Web Literacy. This site introduces and guides readers through all basic questions related to **browsing, search logic, Web traps, validating sites, search tools and email rules / etiquette**, providing tips and advice as well as a number of "do's and don'ts" in English and French. It is one of the most comprehensive introductions to the topic available for (language) teachers.

Outline of Case Studies

This section provides short summaries of the individual case studies as a complement to the section above which outlines the rationale for the choices made. In the electronic version, a link is provided to the detailed descriptions.

Josef Bornhorst, Goethe Institute, Germany

For further information see full report

redaktion D – Das Multimedia-Paket Deutsch

This is a multimedia language course for the teaching of German developed by the Goethe Institute in 2002, using almost all multimedia tools available. It is included in the list of case studies to illustrate how "state of the art" multimedia courses are now being produced.

Educational sector

Upper secondary, adult and continuing education

Scale of the study

Large scale multimedia course

ICT used

ICT fully integrated. Television, radio, online materials, Internet, audio recordings, video, online support.

Pedagogical approach

Broadcast mode with accompanying face-to-face tutor / class support.

Added value of using ICT

Makes use of most ICT modes in a systematic fashion.

Impact on the educational environment

Widely available, but too early to say yet.

Impact on teachers

Starts in autumn, 2002. (After this report.)

Graham Davies, United Kingdom

For further information see full report

Professor Davies' contribution provides a wide-ranging overview of the current situation of FL teaching and learning in England and Wales with particular reference to ICT. In addition, he presents four case studies from different educational sectors (Lower and upper secondary, a technical college, a languages colleges and a special needs school). He refers to European initiatives (e.g. European Online Teacher Training materials) which are of ongoing interest and which represent projects of the type which merit further support and funding from the European Commission. Links are given to further case studies available online. The CILT/NOF case study related to INSET training highlights the importance of providing subject specific introductions to the use of ICT in educational settings.

Cox Green School, Maidenhead, a standard comprehensive school

Educational sector

Lower secondary

Scale of the study

Individual institution

ICT used

Language centre (1 stand-alone computer/pupil) where activities are integrated into regular weekly class-contact hours and centre used as a self-access centre. Internet, authoring packages, commercially produced FLL programmes, Email, videoconferencing.

Pedagogical approach

Integrated approach, exploiting pupils' ICT skills to set up and develop own materials

Added value of using ICT

Pupil involvement, improved examination results: A*-C GCSE results went up by 15% in three years. Students are steered towards more independent learning skills. Software allowing different activities with the same text creates effortless differentiation, with students actively tackling harder levels. Carefully chosen ICT activities allow teachers to circulate while students "beaver away".

Impact on the educational environment

Integration: the work carried out in the language centre is tied in closely with the work done in the "normal" MFL classroom. Pupils and students spoke enthusiastically of how they look forward to using the Centre.

Impact on teachers

Has convinced less than enthusiastic staff of the advantages of using ICT as an integral part of their teaching.

St George's School, Sleaford, a school with Technology College status

Educational sector

Upper secondary

Scale of the study

Individual institution

ICT used

In-house networked language centre, with broadband link to county-wide network. Streamed in-house video clips (ICT support staff have created a template for showing video clips); applications software, commercially produced packages, Web technology

Pedagogical approach

Full integration of ICT in all language teaching classes.

Added value of using ICT

Extends students' learning styles and promotes more independent learning.

Impact on the educational environment

Languages staff and their students freely access computer based teaching materials in networked classrooms.

Impact on teachers

Teaching staff have been actively involved in creating online materials for modern languages, encouraged and supported by ICT support staff and have begun to experiment with Internet technology to create a new brand of teaching materials.

Ashcombe School, Dorking, a school with Language College status

Educational sector

Upper secondary

Scale of the study

Individual institution

ICT used

Two MFL/ICT multimedia labs each with 35 networked computers, for the exclusive use of the Languages Department: Internet, authoring packages, commercial FLL programmes.

Pedagogical approach

Emphasis is on ICT as a means of enabling students to practise key skills, especially listening and speaking. Vision of ICT as an entitlement for all: curriculum entitlement embedded in schemes of work. Regular timetabled access for language learners

Added value of using ICT

Key benefit of technology is seen to allow the **learner** to have **independent control of access** to good 'models'. Multimedia CD-ROMs have had a positive impact on the development of pupils' speaking skills.

Impact on the educational environment

Demonstrates that a strong commitment to ICT, tight management, technician support, and recognition of the need for staff training are the recipe for success. Managers, staff and pupils understand the curriculum, the teaching and learning potential of technology, and share a common approach. Staff training is a high priority.

Impact on teachers

Teachers now exploit the new teaching and learning methods available for use in an ICT environment, rather than falling into the trap of trying to replicate what can be done in

the classroom: e.g. recording oneself on tape, pair work for 'authentic' role play, reading and writing exercises.

NOF / CILT study

Educational sector

INSET Teacher Training

Scale of the study

National: The initiative includes the delivery of INSET courses at selected venues all over the UK.

ICT used

Word-processing, data processing, presentation software and electronic whiteboards, electronic communications, World Wide Web, evaluation of generic ICT resources and selected commercial packages.

Pedagogical approach

Mix of face-to-face and online tuition: 2 days face-to-face, 8 days online. Classroom-based projects submitted to tutors by trainees to demonstrate their ability to put theory into practice.

Added value of using ICT

The whole course is designed to illustrate exactly this: i.e. the value of using ICT.

Impact on the educational environment

The confidence, the mastering of basic ICT terminology and concepts, and the new appreciation of potential learning gains through ICT acquired through training on the CILT-NOF course have empowered MFL teachers to stake their claim to equal access to ICT facilities vis-à-vis other subjects. Many schools report on their MFL department as being the 'best-trained in the school'.

Impact on teachers

Very high level of customer satisfaction and a drop-out rate of less than 10%. Recognition of potential for international communication and resource sharing facilitated by ICT. Improvements in class dynamics. Regard their training in the application of ICT to MFL as an ongoing process

Maria Jesus Filipe, Ministry of Education, Portugal

For further information see full report

The Camões Virtual Centre (CVC) is an Internet platform of the Instituto Camões targeted at students, teachers and other professional educators involved in teaching and learning Portuguese as a Foreign and Second Language, as well as all those who wish to further their knowledge of the Portuguese and lusophone cultures.

The Virtual Centre is divided into four different domains: "*Learning Portuguese*", "*Portuguese Culture*", "*Portuguese Linguistics*" and "*Teaching Portuguese*". It is described here to demonstrate how interested persons may gain access to one of the less widely taught and used languages of Europe by using the new technologies.

This case is taken to illustrate how cultural institutes are contributing to the teaching of the language and culture of the LWULT.

The Camões Virtual Centre (CVC)

Educational sector

Lower & upper secondary, adult and continuing education, tertiary education.

Scale of the study

Worldwide reach through the Internet.

ICT used

Internet, email, chat room, bulletin board.

Pedagogical approach

Combination of computer literacy (using WebQuests, creating a personal Web Site, production of interactive exercises, etc.) and didactics.

Added value of using ICT

A significant contribution to the total learning effect: The mutual benefit arising from the development by all course participants of their own learning materials.

Impact on the educational environment

Creation of a Virtual Learning Community with the participation of teachers from 14 different countries and with different areas of interest.

Impact on teachers

Active participation in the creation of a Virtual Learning Community.

Enrica Flamini, Ministry of Education, Italy

For further information see full report

This study gives an overview of the measures and actions that have been undertaken in Italy at a central level (Ministry of Education) to promote the use of ICT in FL teacher training from 1996/97.

"*Lingue 2000*" is a large scale, nation-wide initiative to improve the level of language learning in state schools in Italy. An important aspect of the project is the introduction of ICT both as a vehicle and means of training for the teachers involved as well as a useful tool for classroom teaching. The effectiveness of the study is reviewed critically, evaluating the impact achieved to date.

CLIL in Lombardia: describes the pairing of foreign language teachers with subject teachers, using a collaborative learning/teaching environment (*First Class*). This illustrates the integration of ICT into teaching and learning - a "learning by doing and reflecting" approach.

Educational sector

Lower secondary

Scale of the study

Regional initiative: Since decentralisation in 1998, regional authorities are now fully autonomous to implement educational innovations. The case refers to an "*eLearning training project on content and language integrated learning (CLIL)*" launched by the Direzione Regionale of Lombardia in 2001/02 in co-operation with the Universities of Pavia and Milan (Bocconi).

ICT used

ICT fully integrated

First class: the eLearning electronic platform.

Pedagogical approach

ICT is fully integrated into teaching / learning activities, using a telematic platform environment which allows tutors and teachers to communicate, to exchange materials, to animate discussion forums, to experiment with new didactic approaches online. The **face-to-face** phases serve to maintain motivation amongst teachers and provide practice in the use of the platform.

Added value of using ICT

In a traditional training course it would not be possible to address all the teachers involved in the project because of the distance; moreover the material available on such a platform is one of the most valuable resources provided by the tool.

Impact on the educational environment

The feedback and response received from teachers involved is quite positive, but no studies have yet been completed on the impact of the project. Relevant outcomes are the materials produced (didactic modules), which have been peer-reviewed (teacher-teacher co-operation), found adequate and used with students.

Impact on teachers

For piloting of educational reform proposed in Italy (2002/03, first year of nursery and primary school) the Ministry of Education is setting up a full scheme of *eLearning* training opportunities for subject-area teachers,

Andreas Lund, University of Oslo, Norway

For further information see full report

This study highlights changing parameters in working life and underlines the fact that different learning styles require different approaches to teacher training. The author describes how trainee language teachers are taught to operate within a new environment using appropriate pedagogical approaches and devices. It is basically a task-based approach which uses portfolio assessment rather than more traditional testing / evaluation techniques.

Teacher Education in Transition: The Norwegian PLUTO Project

Educational sector

Initial Teacher Training

Scale of the study

Department of Teacher Education and School Development at the University of Oslo

ICT used

Collaborative electronic platform: Production of a number of texts: *PowerPoint* presentations, Hypermedia Web pages, etc.

Pedagogical approach

ICT viewed as a cultural tool that transforms the practices it infuses and challenges the cultural settings in which it is embedded.

Added value of using ICT

Intensive exchange of teaching case studies, especially when student teachers are away from campus during teaching practice. Encourages collaborative learning styles and co-operation in pedagogical tasks.

Impact on the educational environment

Apart from the immediate impact on the teachers-in-training, the effects will be felt as this new generation of teachers automatically use and integrate the tools and approaches learnt in their training to the school situation.

Impact on teachers

See above.

Bernard Moro, University of Grenoble, France

For further information see full report

- a. **Web literacy:** emphasises that this is a pre-requisite for language teachers for the effective use of net resources. Using the **GrazVOLL** website on the server of the European Centre for Modern Languages as a resource, he introduces teachers to the use of the Internet, giving useful tips and warning about potential pitfalls.
- b. **Whole class use of WWW:** This contribution illustrates the use of ICT in the classroom using a very powerful, but easy-to-use tool, where the lesson is largely learner-driven.
- c. **Website and Platform complement each other:** an example from Vocationally Oriented Language Learning of a collaborative environment for tutoring and correcting work using an electronic platform as a space for experimenting with writing competence.
- d. **Target Language Lexis for VOLL students:** illustrates the powerful tools at the disposal of students needing to research the net for specialist vocabulary/ subject matter.
- e. **How platforms can change curricular engineering: a case in point:** shows how a virtual platform can provide ongoing support for VOLL students who have to leave half way through (language) studies for job placements.

Collective Viewing in Class

Educational sector

Upper secondary,

University for non-specialists and VOLL

Scale of the study

French lycée students preparing ES baccalauréat (with special emphasis on Economics), but notoriously the least motivated category;

university students whose main subjects are Economy, Law, History, Philosophy or Geography; University professors in Sociology

ICT used

1 laptop computer with:

Web access

Word

hard-disk based dictionary

1 video-projector

Pedagogical approach

ICT constantly in use: the laptop is used as an electronic board with Word for writing, the facilities of Word to help with writing, and the Internet for direct access to Web resources

Added value of using ICT

immensity of resources to tap from

immediacy of access to a language database of the notional-functional type

value of dynamic visualisation of abstract processes on screen

Impact on the educational environment

students are happy

institution appreciates: the laptop + VP set-up is minimal investment, at approx. 2100 EURO

Impact on teachers

increasingly interested

Transferability of model to other educational sectors:

Also students specialising in languages could derive advantages from learning in this way. Any teacher with minimal skills in **WORD** can implement this sort of teaching

The low-cost set-up for non-too-wealthy European partners. The teacher keeps control: although the tool provides ample potential for non teacher-centred approaches, it allows more traditional teachers to feel they are in control, but enhances their didactic potential.

Website and platform complement each other

Educational sector

Tertiary education

Scale of the study

Individual institution: Université Pierre Mendès-France, Grenoble

University students whose main subjects are Economy, Law, History, Philosophy or Geography

Grenoble Town Planning College

University professors in Sociology

ICT used

Web-based language virtual centre (<http://66.36.161.22>) designed by language teacher

QuickPlace platform implemented on University server

Pedagogical approach

language website = finalised resources helping students work

platform = collaborative environment for tutoring and correcting work

platform = space for experimenting writing competence

Added value of using ICT

synergy between finalised Web resources and tentative work by learners

possibility for asynchronous tutoring

great amount of writing = excellent asset for learners not used to writing

Impact on the educational environment

added flexibility

illustrates false assumption that online tutoring is expensive than face-to-face teaching

Impact on teachers

Has shown that online tutoring requires more teacher time / student time and distance teaching requires more didactic competence

Target Language Lexis for VOLL students

Educational sector addressed

town-planning, development management students problem:

students do not have the vocabulary required to deal with their own subject in the target language

general language teacher has no command of this specific vocabulary in either language

Scale of the study

Individual institution: Université Pierre Mendès-France, Grenoble

Grenoble Town Planning College

ICT used

full-scale, state-of-the-art multimedia computer lab → individual access to Web and Word facilities

video-projector for publishing results in front of whole class

Web-based language virtual centre (<http://66.36.161.22>) designed by language teacher

QuickPlace platform implemented on University server

Pedagogical approach

ICT fully integrated

language website = finalised resources helping students work

students research Web for sites related to their subject, select one site

collate review of site, using Word, save to QuickPlace platform

students orally comment their findings

teacher uses platform to evaluate and correct students' work

teacher turns platform files into html format and publish them on Web-based language virtual centre

collective students' work available on Web for their own practice and as model for further work

competencies at work: reading comprehension, lexis acquisition, writing skills, oral skills

Added value of using ICT

great amount of writing = excellent asset for learners not used to writing

pre-professional use of IT-based oral presentations

Impact on the educational environment

extremely high student satisfaction

Impact on teachers

Allows language teacher to use meaningful didactic approaches instead of vocabulary knowledge

How platforms can change curricular engineering: a case in point

Educational sector addressed

town-planning development, management students:

3rd-year students have to spend 6 months in placement far from institution, and cannot maintain competence in target language

Scale of the study

Individual institution: Université Pierre Mendès-France, Grenoble

Grenoble Town Planning College

ICT used

Web-based language virtual centre (<http://66.36.161.22>) designed by language teacher

QuickPlace platform implemented on University server

all collaborative facilities on the platform: discussion areas, chat, assignments, etc.

Pedagogical approach

ICT fully integrated

students on placement access platform on regular basis

read courses, take assignments, deliver papers, have their papers corrected, interact with tutor online (asynchronous / synchronous), interact with other students

teacher uses platform to evaluate and correct students' work

Added value of using ICT

Students continue practising their target language despite being far from institution

Impact on the educational environment

Possibility to have a full language course implemented during 3rd year, allowing students to take realistic final exam

Impact on teachers

Allows language teacher to keep contact with students despite distance.

Bernd Rüschoff/ Yvonne Breyer, University of Essen, Germany

For further information see full report

Professor Rüschoff provides an overview of ICT-initiatives related to the pre-service and in-service training of language teachers in Germany. While the first section reflects on general initiatives concerning ICT infrastructure in education, the second part provides several case studies on the use of ICT in in-service teacher training and at university level. The report finishes with a chapter on recommendations for the integration of ICT in the foreign language classroom. It highlights the use of the whole range of tools available from "data driven learning" to establishing and using platforms for collaborative learning. Part of a large-scale project "Linguistics on line", a Web-based introduction to linguistics for university students, financed by the German Federal Ministry of Education and Research, is described, outlining the impact of ICT on foreign language teaching.

Staging Foreign Language Learning

Educational sector

In-Service Teacher Training for secondary schools, vocational training, higher education and adult education

Scale of the study

European-wide initiative based in Germany

ICT used

State of the art multimedia equipment; creation of training modules that will become part of a network in which teachers can access online modules all over Europe

Pedagogical approach

Emphasis is on the rarely disseminated methodological approach to 'stage' foreign language learning with special emphasis on the innovative idea of connecting this to electronic media (task-based, product-oriented staging of FLT).

Added value of using ICT

The "normal" teaching context and face-to-face situation is replaced by the **staging** of language. Furthermore, the application of new communication technology extends the learning within the classroom, which is motivating and stimulating. The ultimate aim is to provide integrated training for FL teachers to enable them to use ICT in a meaningful way in their classroom.

Impact on the educational environment

The end product will be transferable to other languages as well. Participating partners from the countries of the target languages ensure an optimum usage of the language competence for the project.

Impact on teachers

The project is on-going. So far, teachers have responded positively to the workshops and a network of training modules is being built.

Geh mit

(German Hands-on Modern Information Technologies Teacher Training Scheme)

Educational sector

In-Service Teacher Training

Scale of the study

Europe-wide initiative based in Greece; the aim is to produce a course programme - including the relevant materials - for the training of teachers of German as a Foreign Language. Main focus is the integration of ICT.

ICT used

Available computer equipment for the production of the materials. The resulting courses will be shared through the Internet.

Pedagogical approach

The co-ordination and implementation of the project is based on the techniques and technologies of distance education. As teachers themselves will produce the material, organise and implement the project, hands-on practice for the participants is guaranteed.

Added value of using ICT

The participation of the various parties via the Internet guarantees a close link between theory and practical experience. The envisaged outcome is a task-based curriculum that incorporates ICT.

Impact on the educational environment

The ability of teachers of German as a Foreign language to integrate ICT in their classroom is established and enhanced by making use of the new technologies to achieve project goal. The training curriculum, the aim of the project, will form the basis for future teacher training programmes.

Impact on teachers

Teachers are given the opportunity to design a training programme that takes their needs into consideration and which addresses the main issues concerning the integration of ICT in the language teaching classroom

Linguistics Online

Educational sector

University

Scale of the study

The project started as a national initiative, the end product, however, is now available internationally.

ICT used

High-end technology provides the setting and professional software was used to create a sophisticated eLearning environment.

Pedagogical approach

Task-based, problem-oriented; students research and create their own units, constructivism

Added value of using ICT

The students learn to use ICT as a natural component of their everyday learning process and acquire high-profile ICT skills while actually studying a subject of their choice.

Impact on the educational environment

At present (June 2002), the Virtual Linguistics Campus

has more than 250 students

is running 7 courses in a total of 11 groups

offers all courses as blended variants

offers 4 courses without in-class teaching

is averaging 100 000 visitors per month

has full support by the LSA

and numerous small organisations

Impact on teachers

The platform is becoming an integral part of the curriculum for future ESL/EFL teachers. The course instructors themselves vary in their profile from experienced ICT-user to absolute beginner.

Aase Steinmetz, Denmark

For further information see full report

Ms Steinmetz' contribution outlines the Danish ministry's view of the contribution ICT can make to learning in general and to language learning / teaching in particular. She emphasises that "*The idea is to gradually move focus **from learning about IT to learning with IT. Integrating IT in education will not change that. On the contrary, computers are tools that will support both aspects of the education policy.***"

Her article shows how an overall approach to ICT in Denmark is affecting the different sectors of education: primary, secondary, upper secondary, vocational and higher education. She also mentions that ICT play a particularly important role in the In-service training of teachers.

The case studies she presents deal with simulations in adult education using ICT and the use of co-operative platforms in secondary education where the emphasis is on collaborative efforts across borders in content driven learning.

ARKINO: Architecture in Nordic Countries, or, Living in the North

(An education programme on the subject of architecture using the Internet)

Educational sector

Lower secondary school

Scale of the study

Schools participating in the project:

Eilert Sundt vidaregående skola, Norway, Filstedvejens skole, Denmark, Närpes Högstadium, Finland, Farsund Ungdomsskole, Norway.

ICT used

Word-processor, Scanner, Image editors, Web editors, PowerPoint, CD-ROMs, Internet (email, WWW).

Pedagogical approach

ICT fully integrated. The support and development of IT-competence, students' commitment, and differentiated teaching and interdisciplinary possibilities.

Added value of using ICT

Contact and exchange with fellow students in other Nordic countries. Extending cultural and educational horizon.

Impact on the educational environment

Increase in civic commitment (contacts with local authorities on architectural, ecological and other issues). Creating a new type of dialogue based on an interdisciplinary approach to teaching, where learning is a construction of joint concerns for both student and teacher

Impact on teachers

Relatively few teachers were skilled IT users at the outset and felt the need for support. Further development calls for giving the teachers the possibility of following the working process more closely, thus enabling them to find out how and where their resources could be used in the best way.

DaSveNo, SIMULAB, TELSI, eCOLE

A virtual trip through Norway, Sweden and Denmark

Educational sector

Adult and continuing education

Scale of the study

Subjects involved: Danish, Norwegian, Swedish, Science, History and Art. Learners in Adult and continuing education institutions in Denmark, Norway and Sweden.

ICT used

Word-processor, Scanner, Image editors, Web editors, PowerPoint, CD-ROMs, Internet (email, WWW).

Pedagogical approach

ICT fully integrated. Learning by doing, experimenting and reflecting approach.

Added value of using ICT

Learners found working across borders extremely inspiring. Teachers enjoyed the benefit of exchanging materials. Teachers and students develop friendships. Students became to a large extent responsible for their own learning situation.

Impact on the educational environment

The co-operation between the 3 countries led to the SIMULAB project and development of the TELSI platform.

Impact on teachers

Teachers experienced a (welcome) change of roles and benefited from the use of ICT (particularly from exchange with colleagues in similar teaching situations in neighbouring countries).

SIMULAB

Simulations for language learners using a learning platform ("SIMULAB")

Educational sector

Adult and continuing education

Scale of the study

Learners in adult and continuing education institutions in Denmark, Norway and Sweden and beyond in a variety of European languages.

ICT used

Word-processor, Scanner, Image editors, Web editors, PowerPoint, CD-ROMs, learning platform with Internet, email, chat and bulletin board facilities.

Pedagogical approach

ICT fully integrated.

Simulations: "Simulations not only simulate individual situations, they create a whole communication scenario in the classroom, in which the students learn the language by using it according to the rules and structures set by the environment."

The simulations aim at restoring the natural communicative status of a language - often difficult to recreate in a traditional teaching situation. The main objective is to develop the communicative language skills of the students.

Class preparation time, including all phases of "normal" language lessons form an integral part of the preparation and execution of online simulations.

Added value of using ICT

Several means of communication such as email, chat groups and conferencing systems were used, leading to truly collaborative learning across (national and cultural) borders.

Impact on the educational environment

The advantages of simulations were perceived as follows:

several subjects integrated in one pedagogical activity,

a powerful link between the closed world of the classroom and the world outside

motivation of learners for collaborative work

integration of creativity and regalia

Impact on teachers

Teachers stated they enjoyed very much working with SIMULAB and the simulations. They saw the necessity of a change of roles and were confronted with new challenges, e.g. how to evaluate learners' performance in this new environment.

Francesca Vidal, CRLE, Catalonia, Spain

For further information see full report

This contribution starts with a general overview of the situation and background of language teaching in one of the autonomous provinces of Spain, the Autonomia of Catalonia. It outlines ICT initiatives in Catalonia, giving the legal basis and explaining how ICT has been integrated into language teaching and learning in mainstream education. Three case studies are offered: the IES Manolo Hugué. Caldes de Montbui, the IES Ronda in Lleida and the IES La Serreta in Rubí. The latter case illustrates how task-based co-operative learning can lead to inclusion of learners with special needs where content and a purpose guide and stimulate pupils to use the target language.

IES Manolo Hugué. Caldes de Montbui

Education level

Secondary and Post-secondary (12-18)

Scale of the study

Individual institution

ICT used

Word Processor, CD-ROMs, Internet (email, WWW, text chat)

Pedagogical approach

ICT fully integrated

Added value of using ICT

Motivation raised in writing tasks completion. Learning tasks have become more meaningful since students' outcomes can be published on the Web for a wider audience. Authentic and immediate communication with groups of students of English abroad.

Impact on the educational environment

The Modern Languages Department, being a pioneer in the use of ICT, has gained good reputation as an innovation team, thus, encouraging a school policy on the integration of ICT in all subject areas.

Impact on teachers

Effort and time invested in getting updated has resulted in innovation changes in teaching approach, which has raised their self-esteem when realising that students appreciate an approach that allows them to use tools that, on one hand, belong to their culture and, on the other, will be indispensable in their life. Close planning and co-ordination among teachers to achieve specific goals concerning effective use of ICT for FL learning.

IES Ronda. Lleida

Educational sector

Secondary and Post-secondary (12-18)

Scale of the study

Individual institution

ICT used

Word-processor, Scanner, Image editors, Web editors, PowerPoint, CD-ROMs, Internet (email, WWW)

Pedagogical approach

ICT fully integrated

Added value of using ICT

More focus on classroom oral presentation of project outcomes with support of ICT tools, and full publication on the Web.

Authentic and immediate communication with groups of students of English, French and German abroad to carry out joint projects.

Impact on the educational environment

The Modern Languages Department has integrated in the school flow of making the Web become the communication environment of the school community: teachers, students, parents and national and international partners.

Since ICT has been integrated in all subject areas, teachers and students can benefit from all the possibilities that shared experience can offer.

Impact on teachers

The high level achieved in the outcomes of students' work has motivated teachers to continuously update their ICT skills.

Close planning and co-ordination among teachers to achieve specific goals concerning effective use of ICT for FL learning.

ICT has made the switch towards a project-based approach much easier: instead of being the only providers of information and material, teachers can focus now much more on giving clues concerning group organisation, project development and evaluation of process and procedure followed.

IES La Serreta. Rubí

Educational sector

Secondary (14-15)

Scale of the study

Individual institution

ICT used

Word-processor, Web editors, Scanner, Image editors, Internet (email, WWW)

Pedagogical approach

ICT used as supplementary and complementary.

Added value of using ICT

ICT has made collection and presentation of data easier and publication for further dissemination possible.

Students' and teachers' self-esteem has been raised.

Students' have become more autonomous and have developed information handling skills. They have also become more critical towards specific information as well as towards their own productions.

Impact on the educational environment

The publication on the Web of students' findings concerning a specific controversial issue, such as accessibility, has raised the school community awareness of the problem within the school. It has even crossed the boundaries of the school context, having the local authorities welcomed the suggestions and contributions that the results of the research offer to improve the accessibility policy.

Impact on teachers

In a very short time (a school year) the conviction of the teacher concerning the great potential that ICT tools could have in the best results of the project, has resulted in the creation of an "ICT expert" from a complete beginner.

Strong decision to fully integrate ICT in teacher's further teaching practice.

Marianne Driessen, CINOP, Netherlands

For further information see full report

In her article, Marianne Driessen defines and describes a "LanguageQuest", which is a WebQuest for the learning of modern languages. WebQuests are online activities where learners have to search for information on the Internet. They do so not just by surfing the Internet at random, but by being directed within a specifically structured task. A WebQuest can be very short and be completed within one lesson or hour, but can also be more elaborate and take a longer period of time to complete. A WebQuest can be placed anywhere on the Internet.

This case study demonstrates the way in which a principled and guided approach to the use of the Internet for language learning leads to effective and satisfying language learning.

WebQuests and LanguageQuests

Educational sector

Any

Scale of the study

Web-based activities available to anyone who has Internet access.

ICT used

Primarily Internet, incorporating audio and video components where bandwidth allows, although the tasks within a LanguageQuest need not necessarily be effected online or even on the PC in class. (Parts of) tasks can be assigned or done outside school / the institution in collaboration with other learners or other parties.

Pedagogical approach

Learning by doing, exploring and reflecting.

Added value of using ICT

LanguageQuests offer a great opportunity for teachers/ authors/ developers to develop Web-based materials for task-based language in a structured way according to certain acknowledged quality standards.

Impact on the educational environment

The learner is in the centre of the process of learning when working with a LanguageQuest and must plan, do and evaluate the learning process while working on it.

Impact on teachers

The teacher can be a developer of a LanguageQuest, he/she can search the Web for appropriate LanguageQuests and can instruct and assist students in working with a LanguageQuest.

Franz Mittendorfer, CEBS, Austria

For further information see full report

Partly funded by the European Commission (Leonardo da Vinci), Promotics is the result of co-operation between partners from five European countries: France, Hungary, Italy, the UK and Austria. It is targeted at both job-seekers and those already in employment who use German, English, French, Italian and/or Hungarian as their mother tongue or as a working language and who wish to improve their chances on an international labour market. This case highlights the advantages to be gained in Vocationally Oriented Language Learning from the use of specially designed CALL materials.

PROMOTICS

A multilingual multimedia support package for the teaching / learning of foreign languages for professional/vocational purposes

Educational sector

Upper Secondary (Colleges for Professions in the Social and Services Sectors (age group 14-19), adult and continuing education

Scale of the study

Vocational schools throughout Austria

ICT used

stand-alone laptop plus multimedia projector

computer lab

Pedagogical approach

Multimedia allows input via visuals (e.g. cartoons), audio and written text.

Integrated into overall introduction of business via virtual company and sample communication task, presentation and first contact via set-up a, individual exploration, practice and task-solving via set-up b

Added value of using ICT

Increased authenticity and motivation, exploratory learning, ICT opens "rich learning environment", i.e. starting from input common to all members of the group, individuals set out to explore and fact-find on pre-selected websites, with clear tasks being set.

Impact on the educational environment

Generally positive. Good feedback from learners.

Strong pupil involvement, approach accommodates different learning speed and style. Students develop more learner independence and a greater amount of responsibility and ownership. The program allows both teacher-directed and independent learning phases.

Impact on teachers

Very good feedback. Easy to handle. High level of authenticity does not require in-depth insight into business from the teacher. The teacher learns as s/he goes along with his/her learners.

Transferability of model to other countries (European dimension) is high because PROMOTICS is also available with French and Italian as target languages. Multilingual versions allow contrastive and cross-cultural views.

Stig Myklebust, Folkeuniversitetet, Norway

For further information see full report

Partly funded by the European Commission (Leonardo da Vinci), Autolangues is the result of co-operation between partners from five European countries: the UK, Belgium, Germany, France and Norway. The courses are basically Web-based, but most exercises, illustrations and sound files are supplied to course participants on CD-ROM. All participants have access to the Web course and also receive their own CD-ROM. The AUTOLANGUES project illustrates an effective synergy between CD-ROM based Vocationally Oriented Language Learning materials and Web-based tutoring.

AUTOLANGUES

Technical English, German and ICT for the automotive industry

Educational sector

Adult and continuing education, vocationally oriented language learning

Scale of the study

Web-based + CD-ROM – with teacher

ICT used

The Internet + CD-ROM.

Pedagogical approach

Integration of ICT in language teaching classes. Developing language skills as well as learning to use computers – which is becoming increasingly important within the car industry.

Added value of using ICT

Increases interest – participants clearly seeing the usefulness of improving their language skills while also becoming more familiar with the use of ICT; navigation + links to visual objects enhance learning

Impact on the educational environment

Participants more enthusiastic – enjoy the combination of language learning + ICT

Impact on teachers

Heightens teachers' knowledge of – and interest in – computer-based language teaching and learning.

Valerie Sollars, Mario Camilleri, et al.

For further information see full report

This project, part of the European Centre for Modern Languages medium-term programme 200-2003, provides an excellent example of European co-operation in the

field of early language learning and the use of information and communications technologies. Young learners, 7-10 year-olds, are encouraged to communicate with their peers, using an electronic platform designed specifically for exchange. The contribution is divided into three parts: a workshop description, giving the rationale of the project, a power point presentation outlining theoretical considerations, and workshop report providing complete details.

ICT and Young Language Learners

Educational sector

Primary school

Scale of the study

Europe-wide, involving a large number of primary schools

ICT used

Integration of ICT in language learning classes; use of electronic platform to post-results, provide exchange facilities.

Pedagogical approach

Premise that all learning takes place in a meaningful context. Children need motivation to carry out an activity and be aware of the purpose for doing it. Gives learners:

a reason for wanting to communicate about something;

an audience to communicate with and

a shared interest.

Combination of class activities and posting results for information and exchange on the electronic platform.

Added value of using ICT

Increases motivation and widens horizons of learners by encouraging them to use their new-found language with fellow learners in other countries.

Impact on the educational environment

Impact can best be judged by visiting the website, where the ongoing process of exchanges can be viewed.

Impact on teachers

High involvement of teachers participating both in the preparation (classroom) and publication (website) of pupils' contributions.

Anthony Fitzpatrick, ICC, Germany, et al.

For further information see full report

This project, part of the European Centre for Modern Languages medium-term programme 200-2003, provides an example of European co-operation in the field of Vocationally Oriented Language Learning and the use of information and communications technologies. This series of workshops and related activities from September 2000 to September 2002 set out to show how ICT and their multimedia applications can be established as an integral part of modern language curricula in vocationally oriented education and training, and how they can encourage more flexible and accessible educational provision. The outcome is a comprehensive website that serves as a major virtual resource centre for VOLL-related use of ICT and can be accessed at <http://www.ecml.at/projects/voll>

ICT in VOLL IMPACT

The Impact of Information and Communications Technology in Vocationally Oriented Language Learning

Educational sector

Adult and continuing education, Vocational education, professional training

Scale of the study

Europe-wide, involving a large number of providers of Vocationally Oriented Language Learning

ICT used

Integration of ICT in language learning classes, use of Internet for research and foreign language learning, electronic platforms, electronic tools ("data-driven learning"), exchange forum.

Pedagogical approach

Process- and product-oriented. By jointly developing materials for their topic area, participants became familiar with tools, procedures and strategies for particular applications and their results provide useful documentation and applications for colleagues beyond the workshops.

Added value of using ICT

Increases access to authentic language in a variety of (vocational/professional) contexts. Encourages exchange between teachers.

Impact on the educational environment

Impact can best be judged by visiting the website, where the various aspects of ICT in VOLL can be reviewed. Series of workshops spawned by original, central workshops illustrate the usefulness of providing this kind of forum where experts can exchange views and materials and post them for information to colleagues in the wider European context.

Impact on teachers

High, active involvement of participants at all workshops (see workshop reports) indicates high acceptance of approach and results.

Section 3: Future prospects

"Research in a cluster of schools and kindergartens in late 2001 showed that 50% of the 3 year olds in the group recognised components of computers, were able to turn them on and off and had mouse skills. In 2013 these children will be secondary students whose whole formal education experience will have included access to IT." *Gilly Salmon, Open University, UK.*

"We are immigrants to the information age; our students and our children will be the natives." *Dr Conor GALVIN, UCD Education Department, Dublin.*

Perils of predicting the future

The perils and difficulties linked to predicting the future with regard to ICT can be seen in these statements and predictions:

"This 'telephone' has too many shortcomings to be seriously considered as a means of communication." *Western Union memo 1876.*

"...There's a world market for about 5 computers." *Thomas Watson, Chairman IBM 1943.*

"Computers in the future may weigh no more than 1.5 tons." *Popular Mechanics, 1949.*

"...data processing is a fad that won't last out the year." *Editor of business books Prentice Hall, 1957.*

"There's no reason for any individual to have a computer in their homes." *Ken Olson, Chairman, Digital Corp. 1977.*

"640K ought to be enough for anybody." *Bill Gates, 1981*

Future learning environments

However, the fascination of attempting to foresee developments in the field of ICT and foreign language learning has caught the imagination of many. And at the EUROCALL 2002 conference in Finland Gilly Salmon of the Open University ventured her own predictions.

"Changing learning environments- teaching and learning experiences are changing around us – we need to interact with them in new ways." she stated in her introduction to her keynote presentation "Future learning encounters" at EUROCALL 2002. She outlined four possible scenarios and explored what she thought might be the implications for online teachers for each scenario. Her contribution is amusing and thought provoking and may serve us in our quest to conjecture what lies in store for language teaching in a technologically rich environment. This brief summary of her contribution is printed with her kind permission.

Scenario 1

Scenario 1 she describes as the "**Planet of Contenteous**" where we find technology as a delivery system. High importance is given to content management systems, integrated learning management systems, multimedia, industry standards, DVDs, digital and cable TV. Rivalry between solutions providers is still strong, though two or three market leaders are emerging. The war between open source software and hardware, between incompatibilities and limited data storage is finally resolved.

The associated pedagogy is that of the transmission model of teaching, where information is transferred from experts to novices. And a key role for language teachers is as the content and cultural expert, to develop multimedia programmes and to build online libraries and pathways through resources.

Scenario 2

“**Planet Instantia**” foresees an increasingly global society where language and cultural understanding has become a paramount skill. Instantia meets these requirements through sophisticated **learning object approaches**, with information technology seen as the basic tools. The pedagogy on this planet is usually called **eLearning**. Computer-based courses are offered from desks at work or in learning centres. Learners work and learn almost simultaneously. Flexibility and instantaneousness are the keywords. The costs of travel, training facilities and trainers are slashed compared to on Earth.

The role of ambient intelligence in devices is seen as key on this planet. Every device that is connected to electricity is also connected to the Internet. Hence educational providers are able to think both creatively and in a very integrated way about learning devices.

Scenario 3

“**Nomadict Planet**” provides less stability, less structure, less fixed time for work and leisure, retirement and education compared to Earth. The sense of physical place is not strong. It provides portable learning for mobile lifestyles. Travelling users replace travelling information. Learning on the Planet Nomadict is time independent and individual. The learners are seen as electronic explorers and adventurers. Learning devices are carried, worn or are embedded in person’s bodies and pedagogy is various so individuals make choices based on their cognitive preferences and styles.

Technologies are highly portable, individual, adaptable and intuitive to use. Mobile technologies are seen as essential communication and learning tools. Main technologies in use are Personal Digital Assistants (PDA) and Palm Tops, 3rd generation mobile phones (UMTS), GPS, unfolding keyboards, blow up screens, wireless and personal networks, low orbit satellites, national and international communications networks, high bandwidth, infra-red connections and e-books. All students have laptops, palm tops and text mobiles.

The PC has beaten the TV as a focus for home entertainment, and a few forward looking educators combined games and learning and coined the market.

Teachers, academics and researchers are as mobile as their students. Many are portfolio teachers working for several educational institutions and providers, all over the world, at any one time. They not only have a highly developed awareness of the ways in which traditions of learning and expectations vary in different cultures, but also the ability to work across disciplines and levels of education.

Teachers focus on promoting the concepts of ownership of the learning process, active learning, independence, the ability to make judgements, self-motivation and high levels of autonomy. They provide and support resource based learning, working with skilled technicians and e-librarians.

Scenario 4

Scenario 5 is the “**Planet of Cafélattia**” where learning is built around learning communities & interaction, extending access beyond the bounds of time and space, but

offering the promise of efficiency and widening access. The medium of communication – human language - has become even more important than on Earth.

The key technology is the developed, entertaining, effective Internet to allow immediate and satisfying interaction between students and students, and between teachers and students.

Technologies are asynchronous and synchronous group systems to support a wide variety of environments for working and learning together. Learners connect through both low and high bandwidth devices and systems. Hence the technologies are seen only as mediating devices, promoting creativity and collaboration.

Cafélattia learning appeals to a very wide range of people including the increasing numbers and percentages of “grey learners” who have a great deal to offer to others, a desire to learn through non-traditional means and who have the time and resources to access networked technologies.

The pedagogy is based on notions of a very strong social context for learning with the model of acquisition, argumentation and application. A key activity for learners is finding and interacting with like-minded individuals anywhere on the Planet (e.g. by gender, by interest, by profession) and by being intellectually extended by dialogue and challenge from others. Learners express themselves freely through speech and text. The roles of reflection (an essential tool of expert learners), professional development and the sharing of tacit knowledge are of critical importance. Learning is contextualized and given authenticity by the learning group and the learning community (rather than by the University, as on Earth).

Teachers on Cafélattia think globally but are able to turn their ideas into local and contextualized action. They see the technologies as yet another environment for learning rather than as tools. They are experts at mentoring individuals online and may be seen as companions in the democratic networked learning process, rather than teachers as such. They know when to take part, when to provide expert input, when to act as a peer and when to stay silent. They also have very highly developed skills at online group development for learning and in the use of online resources to stimulate groups (in the role GS calls e-moderation). They know how to welcome and support learners into the online world and to build effective online communities. They act as intelligent agents and facilitators. They have the ability to visualise others in their situations. They know how to allow a sense of humour and fun to manifest itself online. They know how to build gradually on the processes of exchanging information and how to turn this into knowledge sharing and ultimately into knowledge construction.

Conclusions

In her **conclusions**, Gilly Salmon says that it is likely that all the “planets” described will have elements of reality and that there will be a variety of players and processes. Institutionally, she believes that we will probably see further combinations of these scenarios, such as universities with corporates or colleges partnering media companies. She emphasised how important language teaching will be on all the Planets, and that it cannot continue merely in traditional ways.

She is confident that all Planets have special issues and opportunities to offer language learning and that many of the **Cafélattia** approaches are in the area of language teacher development. However, she warns that patterns of the use of information & communication technologies cannot easily be determined, as the ways learners and explorers use new forms of online learning offerings are unpredictable.

Participants' predictions: EUROCALL 2002 and ECML Workshop

This wide-ranging overview of ICT possibilities points to probable pathways and solutions to present problems encountered at the interface between language teaching and the use of the new technologies. It is interesting to note to what extent many of the ideas propounded in Gilly Salmon's keynote presentation at the EUROCALL 2002 conference (see above) were echoed in the views of the participants. Some 90 practitioners in the field of ICT and language teaching were polled at the EUROCALL 2002 conference and at the ECML workshop on ICT in Vocationally Oriented Language Learning (Kuopio, August 2002). Each participant was asked to make three predictions about the use of ICT in language teaching in the next ten years.

A surprising number of the participants were extremely reluctant to make any prognosis whatsoever (approximately 30%). However, there was a great deal of congruence of opinions, no matter which sector of education the respondents were engaged in. The following results recorded on the questionnaires (see **Appendix I**) have been conflated into as few categories as possible. Individual comments which seemed particularly pertinent have been recorded in **Appendix K**.

Increase in the use of ICT:

- The vast majority of respondents were convinced that the use of ICT will increase and that almost every teacher will use ICT for teaching and all students for learning in the near future.
- Most thought that the choice of programs will also increase and that eLearning will grow exponentially

Integration

- Increased use of ICT is seen as an integral part of the curriculum and teaching material (not just peripheral resource) which will find its way into all classrooms

Greater appreciation and demand for *face-to-face* Learning

- Although the advantages of ICT were clearly seen delegates believed that ICT will not totally replace face-to-face speaking practice, which learners will come to appreciate more and more

Improved chances for co-operation and collaborative Learning

- There will be an increased emphasis on real communication/transnational co-operation between classes and between language teachers through collaborative Web environments with particular advantages for LWUTL-language learners and teachers
- This will lead to more sharing of information, knowledge and teacher developed materials between teachers
- There will be less emphasis on subskill exercises (grammar/vocabulary) and more on competencies in real life contexts (Video)

Large-scale developments

- Locally networked taught packages and laboratories will be replaced by global access to Web resources and there will be less teacher involvement in the production of learning materials

Acceptance / less resistance

- There will be less resistance to ICT in presence of enough/suitable facilities and students and teachers will use the technology more and more as a friend/support/information source

Miniaturisation and ready availability of user-friendly machines

- Dedicated computer labs will not be needed in future as students will be using their own computers (laptops, PDAs, mobile phones, etc.) with more efficient and sophisticated technology

Improvement in technology

Some of the innovations expected here were:

- High-speed, secure wireless allowing students to access anywhere
- Mobile technology - "labs without walls"
- Touch-screen technology, speech-recognition
- Widespread use of Electronic whiteboards
- More streaming video and audio for greater emphasis on Listening/Speaking
- Media such a DVDs will gain significant importance
- Wireless (mobile) learning
- Video-conferencing will become easier and cheaper

Acute need for teacher training

- Teacher training is seen by all as decisive for further progress because more ICT requires educated and trained teachers who are able to work in teams and have distinctive roles (developer, moderator, course administrator, etc.)

Increased emphasis on pedagogy

- The pedagogy/research base will develop, albeit slowly and there will be an increased focus on the importance of adequate pedagogy and methodology in order to avoid a mismatch between advances in technology and its uses
- There will be a paradigm shift: from passive consumption to building content

However, there were warning voices ...

- There will be many solutions and programs that have commercial value but are not pedagogically sound for language learning and there is a fear that this area will be dominated by huge , commercial enterprises

Present fascination with technology will fade

- The enthusiasm of students will fade
- Progress will be uneven, varying greatly from one country to another

Increase in distance education, time- and place-independent

- Tele-education is seen as a growth area, leading to time and place independent learning
- E Learning for languages (demand driven, distributed) will take off, especially when possibilities for synchronous, spoken communication will improve
- At secondary level there will be a stronger link between institutional and home learning (e.g. efficient use of email between teacher/student) and autonomous learning will become much more important
- Tele-education developments will lead to increased competition between institutions for online language learners

Change

The major areas in which delegates anticipated change were the following:

- Web-based hypermedia materials will be more widely available and learners will rely increasingly on online support
- There will be an emphasis laid on CMC
- Textbooks will be issued with increasingly sophisticated support material
- There will be complete incorporation of mobile/portable technology
- Individual work will increase

Conclusions

The introduction and increased use of ICT in FL teaching and learning will go hand-in-hand with the popularisation of easily manipulated, user-friendly devices. As long as teachers lack confidence in their ability to master the new technologies, they will not find widespread use in the language classroom. If steps are not taken to facilitate the introduction and competent and confident use of ICT in language teaching, there is a very real danger that CALL and TELL (Technology Enhanced Language Learning) will suffer the same ignominious fate of the language laboratory.

Section 4: Recommendations

The European eLearning Summit

Before we conclude with our **Recommendations** it seems germane to remind ourselves of the findings of EU government representatives and education experts at a recent conference on the issue of ICT in education.

The European eLearning Summit held in May 2001 in Belgium brought together for the first time over 350 representatives from the private sector with education experts and public sector officials in a dialogue on developing education and training provision in Europe. The Summit explored the challenges outlined in the eLearning Action Plan. The declaration presents the following ten recommendations related to the measures suggested by the Commission to remove barriers to access connectivity, support professional development, accelerate eLearning innovation and content development, address the ICT skills shortage, promote digital literacy and lifelong learning and explore sustainable public private partnerships.

1. Connect everyone and everything from everywhere

Phase I

All schools are connected to the Internet physically, email address, URL, etc.

Phase II

Schools are fully networked (LAN, WLAN)

Phase III

Teachers/students' homes (or mobile presences) connected to the Internet.

2. Adopt and participate in the development of open standards for eLearning

Europe should develop an eLearning infrastructure and digital content based on open standards and proven interoperability.

3. Focus eLearning research on pedagogy, eContent and user-friendly interfaces and devices

- Evaluate current eLearning practices and clarify eLearning pedagogy
- Study the impact of end user devices on the teaching and learning process
- Identify new ways in which individuals can interact with network-based services and online content
- Explore the key pedagogical features and interaction of eLearning and classroom based teaching with particular regard to skills based training that requires hands-on experience.
- Determine ways to expedite the scalability of programmes.

4. Create the conditions to sustain a commercial market for eLearning content development

Budgets for learning resources must allow institutions to make substantial purchases of digital content.

5. Increase investment in continuous professional development of educators. Enhance their status. Help them develop an understanding of a pedagogy for eLearning

Educators must increasingly be recognised as a key profession in the successful development of the Information Society and e knowledge economy.

6. Develop flexible curricular and assessment frameworks to provide individuals with the skills needed for participation in the Information Age

National education ministries should review the relationship between vendor certification and national qualification frameworks, including the accreditation of prior learning and experience to promote lifelong learning strategies.

7. Expand eLearning communities and forums

Best practice has been identified and knowledge networks are starting to appear but what is now needed is an easily accessible inventory (possibly in the form of a portal) that would allow systematic and comprehensive tracking of current developments.

8. Provide financial incentives to promote the take-up of eLearning

Incentive-based schemes should be used to encourage individuals to assume responsibility for their own learning and skill development and to encourage employers to support eLearning schemes within their own organisations or local communities.

9. Leverage financial instruments to support eLearning

The Structural Funds should be leveraged to allow quality learning resources and training programs to be developed, translated and localised, particularly in those smaller countries where ICT implementation and eLearning delivery is suffering from a lack of investment.

10. Explore the potential of public private partnerships

Partnerships between the public and private sectors have the potential to:

- provide longer term investment strategies;
- encourage the exchange of experience and best practice;
- promote dialogue on future requirements for multimedia learning materials;
- enhance technology transfer; and
- ensure that business skill needs are taken into account. Clearly defined models and infrastructures now should be developed for Public-Private Partnerships (PPPs).

The EC should stimulate discussion and initiate a major study on sustainable models for PPPs under the European research area for new learning environments proposed in the eLearning Action Plan.

Items **3, 5, 6, 7, 8, 9** and **10** seem to be of particular relevance to the field of ICT and foreign language learning, and some of the suggestions made below and in the Executive Summary of this report make practical suggestions as to how some of these demands may be met.

Proposals for maximising the benefits and minimising the disadvantages of ICT

Workshops will continue to be an integral part in the process

Based upon our consultations with experts and reports from participants in European Centre for Modern Languages workshops and elsewhere, it is clear that the use of ICT in FL teaching and learning has by no means reached a satisfactory stage of penetration in any of the chief educational sectors. Workshops which bring together colleagues with different levels of skills and experience in activities from which they can gain mutual benefit through exchange are seen as extremely useful and productive. Samples of good practice, provided by practising teachers rather than by "experts", are seen as motivating reasons for teachers to pursue the possibilities offered in this field. We therefore recommend that **workshops similar to the ECML series be financed and supported** by the European Commission using the **ICT4LT** and **TALLEN**T curricula as a basis. All courses for language teachers offered under the Comenius teacher training scheme should provide for the integration of ICT skills in the course content. (See Item 5 of the **European eLearning Summit**.)

Very few teacher-training courses actually boast a virtual component, where teachers in training can exchange views and papers as in the Pluto project described by Andreas Lund in his case study in **Section 2**. The posting of practical examples created by other teachers is seen as a highly motivating factor, helping the average teacher to overcome initial inhibitions felt when approaching the new media.

Networking language teachers

The establishment and extension of networks of language teachers working in the field of ICT is also seen as a highly desirable goal (See Item 3 of the **European eLearning Summit**), but we would stress that the use of technology alone will not stimulate teachers to co-operate for any sustained period of time without personal contacts. All ICT workshops have maintained the same pattern so far. Initially, a great deal of enthusiasm is generated during the workshop proper, and the various means of communication are used on a regular basis and intensively for a period of some six weeks to two months after the event, but then energy and interest seem to wane. Unless some provision is made for **persons to be designated (and remunerated) to animate appropriate websites and contacts** during interim periods, then this falling off of interest will be a recurring phenomenon. The tasks to be fulfilled by such a Web animator would be to encourage colleagues to contribute from their everyday teaching experience, to edit and comment on contributions, drawing upon the expertise of the original animating team and other experts in order **to maintain the website as a living organ**, supplying the teaching body with updated materials which will hold their interest.

Special consideration for less widely taught languages and less familiar subjects

The potential of providing a **forum** through ICT for those teaching languages for **less familiar subject areas** and for languages which have not, to date, been included in those typically dealt with in VOLL contexts has not yet been exploited satisfactorily (See Item 7 of the European eLearning Summit). The predominance of English in the area of ICT is, perhaps, inevitable, yet policy makers should encourage more actively the **inclusion of the LWULT languages** of Europe in ICT contexts in order to ensure that the richness and variety of (work) cultures of the continent are maintained and upheld.

New literacies

The growing importance of new literacies (digital, critical, linguistic, cultural) in the workplace is becoming more and more evident (See Item 3 [*skills based training*] of the European eLearning Summit). It is something which the language teaching profession must address, if it is to provide the help and support required by today's workforce. The importance and significance of these developments must be brought home to teachers and teacher trainers, and they must be helped to **provide a principled, meaningful approach** to the development and harnessing of these **new literacies**.

Linguistic challenges

The fact that communications technology is both 'shrinking' - becoming portable and seamlessly entering everyday devices as well as becoming all-encompassing and distributed throughout the world will continue to have a considerable impact on how communities interact (See Item 3 [*Study the impact of end user devices on the teaching and learning process*] of the European eLearning Summit). An effect of this will be the emergence of new genres, new communicative modes and **a need for teachers** to know how **to cope with linguistic challenges that transcend standards and norms**.

Training initiatives

Teacher **training initiatives** needed to be **linked to innovative approaches** to actually using ICT in the language class room: a task-based or project oriented approach using "action research" seems a very promising point of departure. (Item 3: "*Identify new ways in which individuals can interact with network-based services and online content*")

Lessons learnt from the case studies indicate that the ingredients necessary for the successful introduction of ICT in foreign language learning in a school context are:

- ready access for all learners (Item 1. "*Connect everyone and everything from everywhere*")
- the presence of a full-time technician devoted to servicing and maintaining the functioning of the multimedia laboratory
- the employment of a full-time Web Master
- adequate training for all new teachers and in-service training for others
- meaningful use of the laboratory classes for intensive practice
- a total commitment by senior management team to the implementation of ICT in language learning classes

Rather than going for full-blown projects, the use of ICT in language learning could be demonstrated by:

- awareness raising
- showing the usefulness of learning a number of languages
- getting the message across that language learning is not that difficult and that ICT can make it easier
- using the Internet to underline the richness of cultures which make up Europe

Explore the potential of public private partnerships (Item 10)

As has been seen in our research and in case studies, the most frequent use is made of ICT materials when they are linked to standard textbooks. However, the initial costs of investment in this area is prohibitive for most publishers, particularly with regard to the production of material for the LWULT languages. Partnerships between cultural institutes, teachers and publishers may well contribute to a much wider use and acceptance of the new media and also provide an economically viable basis for support structures.

Societal

- That an **expert group** be convened to produce an analysis of the potential of ICT in FL teaching and learning in the Member States of the European Union. Such an expert group could be formed from existing international professional associations such as **EUROCALL**.
- That a **fusion group** be created through Member States being invited to identify appropriate national policy decision-making bodies, and key experts within them that have a mandate to handle initiatives related to ICT in FL teaching and learning.
- That a **think-tank** encompassing representatives of all Member States be created, comprising policy makers, examination board representatives, publishers, research implementation experts and other gatekeepers, to analyse the measures which are necessary to accompany the introduction of ICT at all stages of the FL learning process and at all levels of education.
- That **European expert bases on ICT in FL teaching and learning combine** to form a consortium with which to apply for transnational research funding through the Sixth Framework 2002–2006 programme in order to identify, examine and establish solutions for achieving the aims of encouraging linguistic diversity throughout the EU.
- That **Europe-wide documentation** on language learning through **Lingu@net-Europa** and /or other platforms be broadened in the future to include comprehensive information on ICT in FL teaching and learning and to co-ordinate communication flow and strategic implementation to and between national contexts.
- That a **Europe-wide competition** be established to reward the most innovative and user-friendly use of ICT in FL teaching and learning.

Systems

- That member state policy bodies responsible for language education be invited to identify **local examples of good practice**, possibly in conjunction with the European quality label awards past and present, which can be used as localised "landmark" examples.
- That a short, authoritative text be produced as a **reflection document**, in conjunction with a range of European experts, designed specifically for local ministry of education policy makers and other gatekeepers, which succinctly articulates the potential of ICT in FL teaching and learning according to a range of implementation types.
- That a **European taskforce** consisting of experts in ICT in FL teaching and learning be formed to provide advice, centralised and regional workshops as well as on-the-spot support systems for those launching national/regional programmes for ICT in FL teaching and learning.

- That a **dedicated website** be set up and serviced by a central team of designated experts to provide a forum for advice, a repository of good practice to be fed by nominated experts from throughout the Union, which will develop a principled, meaningful approach to the developing of the new literacies (digital, critical and cultural) in FL teaching and learning. Such a website might build on existing websites such as **EUROCALL**, **ICT4LT** and **Lingu@net Europa**.
- That a **non-language specific platform with authoring options** be developed, focusing on the elaboration of a framework for such a learning environment and providing a forum for the LWUTL.
- **That a platform be created** offering **links** to providers of **online language classes and learning materials**. In addition, potential learners could be provided with a quality guide, outlining salient points to look for before enrolling for a class of this nature.

Strategic

- That **recommendations be drawn up which indicate levels to be acquired in the new literacies** (digital, critical and cultural) together with provision for attendant quality assurance measures.
- That **training modules** be further developed and refined, building upon existing materials available at the **ICT4LT** and **TALLENT** websites.
- That a **resonance group** be formed comprising key experts previously involved with both Council of Europe and European Commission supported assignments and projects relating to forms of ICT in FL (1994–2002).
- That the European Commission offers **funding for teachers and students** wishing to develop practical ICT skills that are linked to FL teaching and learning in other EU Member States, e.g. to follow courses such as those developed under the **TALLENT** project.
- That **interdisciplinary research** on existing and future generations of multimedia interactive technologies be conducted by consortia of universities and the private sector working towards provision of quality, cost-effective hard- and software for interactive, multi-location language delivery.
- That a special fund, fed from the LINGUA and MINERVA programmes, be allocated for specific **research into speech technology** applications for language teaching and learning, building upon existing international professional associations such as InSTIL (Integrating Speech Technology in (Language) Learning):
<http://www.instil.org>
- That a network of institutes be established on a Europe-wide basis to support teachers and students of **LWULT languages**. See:
The website of the Virtual Departments for Minority Languages (VDML) project:
<http://www.ucl.ac.uk/epd/herdu/vdml>
The **Welcome** project website (University of Ghent):
<http://talenc29.rug.ac.be/welcomeweb>

Practice

- That all areas of **vocational education and training** be given a special focus with regard to use of ICT in vocationally oriented language learning, combining sector specific target language knowledge with job-specific communication competencies.
- That **adult and continuing education** be used as a sounding board for mixed-media FL distance education with the aid of ICT, with particular emphasis on intercultural understanding.
- That techno-human emphases in teacher training courses be tempered with approaches which **favour human-techno elements**, respecting information ecologies which form around the meaningful use of ICT in different communities and work settings.
- That the true **added value of ICT** in terms of new learning / teaching paradigms be emphasised in teacher training rather than the mere addition of tools to the teacher's repertoire.

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http://www.cid.harvard.edu/cr/gitrr_030202.html

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Yu Hong Wei & Davies G. (1997) "Do grammar checkers work?". In Kohn J., Rüschoff B. & Wolff D. (eds.) *New horizons in CALL: proceedings of EUROCALL 96*. Dániel Berzsenyi College, Szombathely, Hungary. Available (2002) at: <http://www.camsoftpartners.co.uk/euro96b.htm>

Websites

A large number of links relevant to ICT and FL teaching and learning may be found at: <http://www.camsoftpartners.co.uk/websites.htm>

The following key websites are referred to in this report:

EUROCALL:

<http://www.eurocall.org>

Flash Eurobarometer surveys (DG Information Society):

http://europa.eu.int/information_society/eeurope/benchmarking/list/2001/index_en.htm

GrazVoll:

<http://www.ecml.at/projects/voll>

ICT4LT (ICT for Language Teachers), a substantial repository of ICT training materials for FL teachers in four languages (English, Italian, Finnish and Swedish), developed with the aid of funding under the EC's SOCRATES Programme:

<http://www.ict4lt.org>

LinguaNET-Europa: multilingual resources centre to support language teaching and training:

<http://www.linguanet-europa.org>

TALLEN, a body of ICT training materials for FL teachers for delivery in face-to-face workshops, developed with the aid of funding under the EC's SOCRATES Programme:

<http://www.solki.jyu.fi/tallent>

WorldCALL:

<http://www.worldcall.org>

WELL:

<http://www.well.ac.uk>

Appendices

Appendix A: Polling of European Ministries of Education

Questionnaires were distributed to all ministries of education in Europe, to leading publishers of foreign language teaching materials, to delegates at the 2002 EUROCALL conference and to colleagues nominated by their national governments to participate as experts in the European Centre for Modern Languages' workshop on ICT in VOLL IMPACT in September, 2002. The questionnaires posed specific questions related to the present and future use of ICT in FLT. The results are summarised here.

Despite extensive Internet research, it was difficult to find specific data related directly to the introduction and use of ICT in FL teaching and learning in Europe, so the research team polled ministries of education, publishers and prime movers in the field to attempt to obtain a flashlight picture of the present state of the art. The questionnaires used in these surveys are to be found in **Appendix I** and **Appendix J**.

Some 45 ministries throughout Europe were contacted via email, fax and telephone.

In order to obtain a fairly representative picture of current use of ICT in teaching institutions, a survey of some 90 teachers in vocational, adult and higher education attending the annual EUROCALL conference as well as colleagues nominated by their national governments to participate as experts in the European Centre for Modern Languages' workshop on ICT in VOLL IMPACT in September, 2002 was conducted. It must, of course, be borne in mind that this group of respondents represents highly involved and motivated professionals whose presence at the events clearly indicate their commitment to ICT and foreign language teaching. As Chappelle says: "[...] *the majority of those who teach language and contribute to teacher education appear not to be engaged in discovering how best to use technology in language teaching.*" (ReCALL 13.1, 2001)

The following Ministries of Education completed the questionnaire or provided written reports:

Catalonia

Cyprus (report only)

Estonia

Finland

France

Fürstentum Liechtenstein

Greece

Italy

Luxembourg

Macedonia

The Netherlands

Poland

Portugal

Romania

Spain

Sweden

Switzerland

The individual responses can be read by clicking on the name of the respective name of the country / region.

Part A: Policy and Statistics on the Use of ICT

Question 1 a)

Does your ministry have a clearly formulated policy regarding the use of Information and communications technologies specifically in foreign language teaching?

Nine responded positively, whilst seven stated that they had no specific policy with regard to ICT in FLT. Estonia modified its "No" with "*We have a policy for implementing ICT in primary and secondary education incl. language learning*" and referred, to its website: http://www.tiigrihype.ee/eng/tiiger_pluss/strateegia.html

Question 1 b)

Is research and development in this sector encouraged and supported?

Ten responded positively, five negatively. One country did not answer this question.

Question 2)

Statistics related specifically to the teaching of foreign languages with the aid of ICT. Only one country claims to carry statistics related to the use of ICT in FL teaching and learning in its area. The Polish ministry attached a paper: "*ICT challenge for teachers*".

General statistics related to teaching with the aid of ICT

The following ministries provided references:

Luxembourg

<http://www.men.lu> and <http://www.script.lu>

Estonia http://www.tiigrihype.ee/eng/publikatsioonid/tiigerluup_eng/tiigerluup_eng.html

Italy

http://www.istruzione.it/innovazione_scuola/didattica/quadro/indagine.pdf

Netherlands

<http://www.ict-onderwijsmonitor.nl/rapportage.htm>

Sweden

<http://www.Skolverket.se/skolnet>

Switzerland

http://www.statistik.admin.ch/stat_ch/ber20/indic-soc-info/ind30401d_t2_v2.pdf

We estimate that X% of language classes in our country / region make regular use of ICT in foreign language training

Catalonia	25%	Luxembourg	not answered
Estonia	20 %	Macedonia	1%
Finland	40 %	Poland	5%
France	not answered	Portugal	not answered
Fürstentum Liechtenstein	60%	Romania	30%
Greece	not answered	Spain	not answered
Italy	10%	Sweden	"?"
		Switzerland	not answered

The estimates differ greatly with Macedonia reporting 1%, whilst the Fürstentum Liechtenstein mentions 60%. It can be assumed that these estimates cannot yet be supported by figures. The actual percentage of language classes that make regular use of ICT in foreign language learning should be researched on an ongoing basis.

Part B: Training and Software Programmes

Twelve of the countries responding say that they use training and software programmes, but six report that they do not dispose of any specific programmes which support foreign language teaching with the aid of ICT.

Part C: Present ICT Publishing Activities

Support of the production of ICT language learning materials for different languages:

1 country supports the production of ICT language learning materials in its **own** language.

5 countries support the production of ICT language learning materials in their **own and other languages**

4 countries support the production of ICT language learning materials in **languages other than their own.**

4 countries do not support the production of ICT language learning materials in **any languages**

1 country did **not answer** the question

In the majority of countries supporting the production of ICT language learning materials most educational sectors are involved.

The range of media used for these materials includes CD-ROM, Internet, DVD and Floppy disks, while CD-ROM and Internet are the media which are most often used.

The type of materials most frequently produced are complete, "stand-alone" courses, "stand-alone" supplementary materials and supplementary materials for existing textbooks, but also fully integrated materials for existing text books and, in a few cases, authoring tools are produced.

The question why this kind of materials has not yet been produced (extensively) is answered in different ways. 3 countries mention high costs, 2 say that there are insufficient ICT resources / facilities, 3 say that they see these materials as solely the domain of commercial publishers, 1 country says that the production of such material is often integrated in European projects, another country says that the Internet itself is a possibility of sharing and lowers the need for products. 5 countries did not answer this question.

No-one said that there is no demand for such materials.

Part D: Planned ICT Publishing Activities

As far as planned ICT publishing activities are concerned, 9 countries say that they are not planning any further publishing activities, whereas 7 countries are planning corresponding activities related to several languages and educational sectors.

Those countries planning further publishing activities mostly intend to use the Internet and CD-ROM, but also floppy disks for their materials. The types of materials correlate with the ones named before (under C).

Part E: Future Perspectives vs. Present Use

1) Ten countries answered this question. Most of them expect high increase in the use of ICT in foreign language learning / teaching within the next ten years; some expect increases of up to 300% in certain educational sectors.

2) Conditions which would encourage the use and the development of ICT materials for foreign language learning:

The most frequent mentions here were as follows:

- establish necessary infrastructure: soft- and hardware, access to computers and Internet
- financial support policy
- co-operation between commercial publishers and educational institutions
- **very important → teachers:**
 - regular training for teachers needed
 - overcome divide between ICT and languages
 - build networks of co-operation and support; use Internet for distribution
- create a qualitative certification system for the use of ICT in FL teaching

Appendix B: eEurope Flash Eurobarometer surveys

Two of the most useful and pertinent surveys for the purposes of this study were prepared under the heading *European Youth into the Digital Age* and may be downloaded from the following page at the DG Information Society website:

http://europa.eu.int/information_society/eeurope/benchmarking/list/2001/index_en.htm

The data collection is based upon annual **Flash Eurobarometer** surveys in the 15 Member States of the European Union between February and May 2001, covering Headteachers (Flash 101) and Teachers (Flash 102) respectively. These surveys are the first attempt to get a comprehensive overview of the state of development of new technologies in schools in all EU Member States on the basis of a consistent data collection methodology and timeframe, making it possible for the first time to make valid comparisons between Member States.

The main aim of **Eurobarometer Flash 102** was to determine the main usages that teachers make of computers and the Internet, and their degree of familiarity.

The report contains the following aspects with regard to the use of ICT by teachers in non-ICT subjects:

School

- Pupils' access to computers
- Internet connectivity
- Web resources
- Main characteristics of the equipment

Teachers

- Use of computers and the Internet
- Frequency of computer and Internet use
- Main reasons for not using computers and the Internet
- Opinion regarding the Internet
- Networking with other schools
- Computer and Internet use at home

Although there is little specific reference to use by language teachers, implications for foreign language teaching may be extrapolated from the results presented.

The report emphasises that the development of ICT is a high priority in all EU states. Conclusions drawn from the study point to the diversity of situations and approaches regarding the development and usage patterns of computers and the Internet from one Member State to another.

One of its chief conclusions is that

“European teachers seem to be **overwhelmingly open towards technological change**. It therefore looks as though there is an enormous reservoir of potential Internet users amongst EU teachers. The proportion of teachers who believe the Internet is not relevant to their teaching is particularly important where take-up is high, whether it concerns countries or type and level of education.”

The following is a summary of the main findings of the report.

Pupils' Access to Computers

On average, there are 12 pupils per computer in EU schools, but there are important discrepancies from country to country with figures varying from 3 to 25.

Discrepancies are even stronger when it comes to computers connected to the Internet. The EU average stands at 24 pupils per on-line computer with figures ranging from 3 to 50.

Internet Connectivity and Web Resources

The EU is close to reaching the eEurope target of having all schools connected to the Internet by the end of 2001.

- 9 out of 10 schools are connected
- more than 2 out of 3 via ISDN
- 33% dial-up through a regular phone line
- so far, broadband connection is used by a minority of schools

The most popular Internet tool is electronic mail.

Web Resources

Half of on-line schools also have a Web page and/or an internal PC network (or Intranet).

The authors of the report conjecture that it may be more appropriate to put computers directly in classrooms in smaller schools where a computer lab may not be a cost-efficient solution and where libraries may be too small.

Level and Quality of Computer Equipment

Computers used in EU schools tend to be fairly recent and the level of computer equipment in EU schools is relatively high.

The main factor influencing computer equipment is the level and type

of education. At EU level, the number of pupils per computer doubles between professional/technical and secondary education (from 4 to 9) and again between secondary and primary education (from 9 to 15). The trend is comparable regarding on-line computers: from 8 pupils in professional/technical education to 15 in secondary and 37 in primary education.

Use of Computers and the Internet

There are important discrepancies from one EU country to another, but Computers are now used by a majority of European teachers.

7 out of 10 in primary education, and about 6 out of 10 in secondary and professional/technical education. Primary teachers also spend more time using off-line computers with pupils.

The use of computers to connect to the Internet: 34% primary 37% of secondary teachers 42% of professional/technical teachers.

The amount of teachers who use computers and/or the Internet is determined by the level of school equipment and connectivity in individual countries. The higher the level of equipment and connectivity, the higher the usage level.

Two key factors determine usage: gender and age. The proportion of female teachers who use off-line computers and the Internet is significantly lower than that of male teachers, and so is their usage frequency (44% of male teachers use the Internet

compared to only 31% of female teachers). Age also seems to be an obstacle to technology take-up, but its impact on usage frequency is contrasted.

There is also a strong correlation between usage level and taught

subjects: Language teachers tend to be more open to ICT use than other (non-ICT) teachers.

Opinions regarding the Internet

European teachers are overwhelming open to new technologies and to the change they will induce.

Over 50% of Europe's teachers have been trained in the use of computers and/or the Internet, but less than four out of 10 European teachers use the Internet in class. More significantly, nine out of 10 teachers use a computer at home, and 7 out of 10 have an Internet connection at home.

Teachers who use the Internet with their pupils seem overwhelmingly convinced of its usefulness. independent of level and type of education, gender and age, 9 out of 10 are convinced the Internet has already or will sooner or later change the way they teach.

Main Reasons for not using the Internet

The main reasons invoked by teachers who do not use the Internet are linked to connectivity and equipment.

The Internet's lack of relevance to the teaching is an argument that is particularly strong in countries where Internet take-up and usage levels are high: almost one out of two teachers who doesn't use the Internet in Denmark, Finland and Sweden.

Computer and Internet Use at Home

9 out of 10 European teachers have a computer at home and 7 out of 10 European

teachers have an Internet connection at home. Overall, the picture is much less divergent than at school level. The very high proportion of teachers who use computers (90%) and the Internet (70%) at home underlines the formidable potential for a rapid development of Internet use in EU schools. Furthermore, growing familiarity with the new technologies acquired at home may set the basis for more intensive and sounder use with pupils.

Networking with other Schools

Networking between EU schools could contribute to *European integration* but actual usage patterns are disappointing from this point of view: *only half of Europe's teachers engage in networking* and they do so primarily at regional or national level.

Appendix C: The Global Information Technology Report

The *Global Information Technology Report* was produced jointly by the Centre for International Development at Harvard University and the World Economic Forum. An important chapter in the report is entitled *The Network Readiness Index (NRI)*, in which 75 countries representing 80% of the world's population are ranked in terms of their potential to exploit ICT (Kirkman et al. 2002). The NRI ranks the 75 countries according to their capacity to take advantage of ICT networks, bearing in mind key enabling factors as well as technological factors: for example the business and economic environment, social policy, and the educational system. Higher ranked countries have more highly developed ICT networks and greater potential to exploit the capacity of those networks. The following table shows the ranking of the ranking of the EU Member States in terms of their "network readiness":

NRI Ranking	Country		
3.	Finland	18.	Belgium
4.	Sweden	19.	Ireland
6.	Netherlands	24.	France
7.	Denmark	25.	Italy
9.	Austria	26.	Spain
10.	United Kingdom	27.	Portugal
17.	Germany	31.	Greece
Luxembourg is not included in the NRI.			

Interestingly, and perhaps not surprisingly, there is a strong correlation between the NRI and the countries of origin of visitors to the **ICT4LT website** (Davies 2002:8-9). 15 out of the top 20 countries in the NRI also appear in the top 20 countries of origin of visitors to the **ICT4LT website** – statistics based on data collected up to April 2002.

There are no major surprises in the above list, apart from the low position of France, which one would have expected to be much higher in view of its relatively strong economy and highly developed educational system.

In general, the EU MS are placed in strong positions in the networked world. Only the USA and Iceland are ahead of the leading EU MS, occupying respectively positions No. 1 and No. 2. Norway is ranked at No. 5, and Switzerland at No. 16.

As for policies on extending ICT use, the NRI chapter contains the following important statement:

Decision making on policies and programs to promote ICT use often relies too much on absolute numbers rather than qualitative aspects of connectivity. There is a tendency to believe that more is better – more Internet users, more computers, more computer labs. However, a focus on extending ICT coverage without complementary training or content can dilute users' experience with ICTs, leaving users with poor quality access or turning them off from the technology completely. (Kirkman et al. 2002:23-24)

The phrase that stands out here is *complementary training or content*. The provision of complementary training has to go hand in hand with the provision of equipment and access, and the content has to be relevant to the intended users: see Davies (2002) and Davies (2003 – forthcoming: in press).

The **Flash Eurobarometer** surveys (referred to in **Appendix B**) provide more detailed information on the availability of ICT technologies in EU schools, but little data is at present available on ICT in education for pre-accession countries. The following cameos, taken from the *Global Information Technology Report* give useful background information on the network readiness of a number of these countries. Information on Norway is also included.

Bulgaria (NRI 53)

To strengthen national ICT skills, the previous government allocated funds specifically for ICT education in schools. These funds are sufficient to provide PCs for half the high schools in the country.

Czech Republic (NRI 28)

Currently [an] Internet connection is not affordable for the general public due to its high [per] minute rate, making the Internet a tool just for certain income groups. Immediate liberalisation of the telecommunications market should drop the prices for dial-up connections or bring new alternatives, like xDSL.

Estonia (NRI 23)

Estonia has been a leader among central and eastern European countries in liberalising its fixed-lines telecommunications market. The nation is also the regional leader in Networked Readiness with its twenty-third overall ranking, comparable to France and Israel.

The Estonian telecommunications infrastructure is advanced and has been completely upgraded. There is state financed Internet access in Estonia for government, education, and medical sectors and affordable dial-up Internet costs for the public (Ranking in Internet Price and Quantity: 21). Internet penetration is relatively high by European standards.

In the education sector, the Tiger Leap program¹ is aimed at connecting schools and increasing computer literacy among teachers and students. Several national programs focus on Network Use and e-government. The Look@World initiative's goal is to surpass Finland in Internet use in three years, and to reach an Internet penetration of more than 70 percent. A nation-wide government project, e-Citizen, was designed to provide better communication and co-operation between Estonian citizens and the public sector by introducing and supporting Internet services.

Hungary (NRI 30)

One government initiative to increase ICT literacy among the population is Sulinet (School Net), launched in 1996. As part of the program's first phase, Sulinet is establishing Internet connectivity in all secondary schools in Hungary. The second phase will provide Internet access to all of the elementary schools in the country. The initiative pays significant attention to distance learning, especially for people in rural areas.

Latvia (NRI 39)

With the goal of preparing students, teachers, administrators, and institutions at all levels, the government and the University of Latvia launched the Latvian Education Information System (LIIS) in 1997. LIIS established education, management, and

information services as its priorities. Latvia's ICT education budget increased by 20 percent in 2000. By the end of 2000, all schools offered computer classes and almost all had Internet access (more than half used it), and more than 50 percent of the country's teachers were trained. (Ranking in Internet access in Schools: 30). ICT is the fastest-growing sector in the country and is among the three top national economic priorities (Ranking in ICT as Government Priority: 36), alongside timber and light industry.

Lithuania (NRI 42)

Lithuania has the lowest percentage of Internet users in the Baltic States. The government has initiated several programs to address the need for ICT literacy across the population (Ranking in Quality of IT Education: 60). In May 2000, the Department of Information and Informatics created a strategy to develop Lithuania's Information Society and identified guidelines for the next several years. Additionally, the Ministry of Education (ME) has made access to information technologies a priority for education. The resulting educational initiative is expected to link all secondary schools with higher institutions and the ME, and will allow research and development to be more integrated. Distance learning has also gained importance as part of the solution for improving ICT literacy in rural regions.

Norway (NRI 5)

Despite slow initial development of broadband, recent estimates suggest that at least one-third of all Norwegians will have broadband access by the end of 2005 (Ranking in Availability of Broadband: 26). Meanwhile, the government aims to connect all local authority administrations, hospitals, schools, and libraries by the end of 2002. In June 2000, the Norwegian government launched a national ICT program, dubbed eNorge, designed to promote ICT and Internet use (Ranking in ICT as Government Priority: 30).

In the promotion of a Networked Society, eNorge looks to support Norwegian cultural content and services. For example, eNorge has backed projects that incorporate the Sami language and its unique characters into software as well as others that develop digital teaching aids. In addition, eNorge has supported public access by working with local schools to make their ICT facilities open to the public during evening hours.

Poland (NRI 35)

At the beginning of 2000, 16 percent of Polish primary or secondary schools had Internet connectivity (Ranking in Internet Access in Schools: 33), and no Polish universities taught modern Internet skills. A government program has been established to bring all schools online by 2001.

Romania (NRI 65)

Romania's largest challenge may be the underdevelopment of its rural areas. The lack of technology in rural areas (in 1999, only about 5% of the rural population had access to telephones) has paralleled significant economic and social discrepancies. To overcome these deficits, the Romanian government started a US\$500 million, 3-year program in 2001 to create ICT community centres and to supply schools with computers, software, and educational content -ranking in Internet Access in Schools: 74.

Slovak Republic (NRI 33)

The number of people using the Internet in the Slovak Republic is growing slowly, because PC penetration is low and Internet access is expensive (Ranking in Public Access to the Internet: 43). Internet penetration in the education sector is still low. In an effort to alleviate this problem, the government has launched the Infovek Slovakia Program, which will provide an Internet connection and PCs to approximately 3,000 schools over the next five years.

Slovenia (NRI 29)

Slovenia has one of the best infrastructures among the former Yugoslavian states (Ranking in Information Infrastructure micro-index: 36) and is a regional leader in Internet connectivity and ICT education. Higher education is one of the Slovenian government's top priorities (Ranking in Social Capital micro-index: 19), and the government has publicly committed to invest in youth for the digital age. All schools have PC labs with Internet access, and Informatics is a required course in the national curriculum (Ranking in Internet Access in Schools: 20). Though there is still a lack of ICT specialists in the country and insufficient educational material on the Web, distance learning programs are beginning to address this problem and may contribute to expediting national development in Slovenia. The University of Maribor recently started the Development of the Technology-Supported Distance Education Initiative, and some municipalities have started projects to install infomats in remote locations.

Appendix D: IEA SITES Project

The *Second Information Technology in Education Study* (SITES) project is an international comparative investigation of the use of ICT in primary and secondary education in more than 30 countries around the world, conducted under the auspices of the International Association for the Evaluation of Educational Achievement (IEA). <http://www.iea.nl>. The **SITES** project consists of three modules:

Module 1: A snapshot picture of the current situation regarding ICT in education (1998-1999)

Module 2: Observation in selected schools (1999-2001)

Module 3: A repeat of Module 1 to determine changes across time and an assessment of the Information Society "literacy" of students and the way schools and teachers offer opportunities to students in this domain (2000-2004).

The results of Module 1 are presented in a report that may be downloaded from:

<http://www.mscp.edte.utwente.nl/sitesm1/press/pressw97.doc>

The report's main findings are:

- Many schools in economically developed countries are getting access to the Internet. The use of this medium by students is still low.
- The density of computers for instruction is continuing to rise. Many countries have an average of one computer for every 10 students.
- The adequate training of teachers is still a major problem in most countries.
- There are indications that ICT facilitate changes in pedagogical practices.

Appendix E: European Report on Quality of School Education

In this study, effected by EURYDICE (<http://www.eurydice.org>) for 1997/98, a comparison was made between different approaches to ICT in school curricula throughout Europe. It includes a number of pre-accession countries and illustrates a significant difference at that time between approaches to ICT between Western Europe and Central and Eastern Europe. It is also notable that Italy and Portugal stand out as countries that had not adopted an ICT policy in schools at this stage. We will see elsewhere in statistics and reports that both countries have made considerable efforts to catch up with their partner countries in the EU, and that great investments have been made, both in terms of technology and teacher training. As can be seen from **Appendix C**, which refers to the **Networked Readiness Index** in the *Global Information Technology Report* (Kirkman et al. 2002) a number of pre-accession countries have also vigorously addressed the problem of the "digital divide", and later examples show how countries like Poland have drawn up strategic plans to place their educational systems on a par with their Western European neighbours.

Appendix F: EURYDICE

Basic *Indicators on the Incorporation of ICT into European Education Systems Facts and Figures 2000/1 Annual Report*

EURYDICE

(Working Committee on Quality Indicators, 2000)

This research indicates that one or more projects aimed at introducing ICT into secondary education have been initiated in all European countries. With the exception of very few education systems (the German-speaking Community of Belgium and Latvia), projects also exist at primary level. These projects are national or regional (in the case of countries in which responsibilities for policy has been decentralised).

In Spain, plans are being developed through the Centro Nacional de Información y Comunicación Educativa (CNICE), directly run by the ministry, and the different Autonomous Communities, covering three levels of education (primary, lower secondary, upper secondary). These national or regional plans go hand in hand with local initiatives. They are particularly numerous in Finland and Sweden.

Most projects at primary and secondary levels of education generally started after 1995. The most long-standing initiatives were launched in the 1980s, and only rarely involved the three levels of education (except in Spain and France).

Appendix G: OECD Conference on ICT – Policy Challenges for Education

This conference was convened by the Council of Ministers of Education, Canada, in April 2002 to review future challenges in Education and ICT with regard to policy, planning, and practice. It dealt with innovative use of ICT in classrooms and schools, teaching and ICT, online learning issues, and the use of ICT for learning. The conference was attended by representatives from over 20 countries (mostly European). Government representatives outlined national policy for the introduction and use of ICT in education in their respective countries and debated issues linked to future use of technologies in educational environments: <http://www.cmec.ca/stats/pcera/rsevents02/oprog%5Fe.htm>. Some of the papers (e.g. from Germany and Ireland) illustrate how countries have moved on issues reported in the *Flash Eurobarometer* surveys mentioned in **Appendix B**.

Within the context of the conference, a number of presentations were made which clearly pointed to the fact that most European countries are now awakening to the fact that they must address the question of computer literacy with some urgency. Individual presentations may be downloaded from the conference site at: <http://www.cmec.ca/stats/pcera/rsevents02/oprog%5Fe.htm>

One notable example is that of Germany, which presented rather poor figures in the *Flash Eurobarometer* surveys. Since the early 1990s, the German Federal Ministry of Education and Research has spearheaded a number of actions to introduce a more favourable ratio between learners and computers, and has initiated programmes to encourage the Länder to integrate the use of ICT in all parts of the school curriculum ("*Schulen ans Netz*"), whilst providing accompanying measures to ensure adequate provision in higher education to help to diminish imbalances (e.g. in building and equipping universities). It is also heavily funding research and development in ICT: "*Virtual University Concepts*", "*Notebook University*" and "*Linguistics online*."

A more detailed account of activities and programmes is to be found in the case study on Germany in **Section 2** of this report, but it is interesting to note here that the German

government is specifically addressing some of the problems highlighted in the **Flash Eurobarometer** surveys. For example, specific programmes have been initiated to help women overcome inhibitions in the use of the new technologies: e.g. LeaNet, the online-network for women in education – a programme for female teachers; LizzyNet – the online-community for girls. A detailed official account is to be found at the website cited above.

In addition to the above conference, the OECD has provided comprehensive documentation on the use of ICT in education in a number of case studies of best practice from throughout the world. The leading article related to the following abstracts “Quo vademus? The transformation of schooling in a networked world” by Richard L. Venzky, Cassandra Davis, OECD/CERI, Version 8c, March 6 2002, provides an extensive overview of the field and can be downloaded from:

<http://www.oecd.org/pdf/M00027000/M00027107.pdf>

where the remaining case studies can also be viewed.

Appendix H: The ICT League

In the Summer of 2001 the Nordic countries (Norway, Sweden, Finland, Iceland and Denmark), Canada and the Netherlands took the initiative to establish an ICT-League, an informal network of policy makers and experts concerned with ICT in education. The ICT-League countries share a great interest in the third phase of policy making concerning ICT implementation in education. After providing schools with hardware, software and Internet connections and updating the ICT-skills of teachers, the main challenge now lies in the pedagogical use of ICT in the classroom and the real development of eLearning. The ICT-League is not a closed network, but is keen to learn from other international experience

The document gives an overview of ICT in education policies and is useful reading in terms of government policies in this field. Although not specifically related to the use of ICT in foreign language teaching, it mirrors current thinking in most EU countries.

Chapter 1 summarises the ICT-policies of the League-countries.

Chapter 2 looks at recent international findings concerning ICT-implementation in education.

Chapter 3 outlines the main topics to be addresses by the ICT-League, relevant for each country in the league, but also contributing to the commitments the European countries made towards eLearning in the eLearning Action Plan and the Resolution of the European Council regarding eLearning of 6 June 2001.

Chapter 4 summarises findings and mentions strategic points for the future agenda.

<http://www.menntagatt.is/ictleague/>

Appendix I: The Questionnaire for Ministries

Survey on “*The impact of the use of new information technologies and Internet on the teaching of foreign languages, and on the role of teachers of a foreign language.*”

Questionnaire for ministries

Name of Ministry: _____

Address: _____

Tel. _____

Fax _____

email _____

Person responsible: _____

A. Policy and statistics on use of ICT

- Does your ministry have a clearly formulated policy regarding the use of Information and Communication Technologies (ICT)¹ **specifically** in foreign language teaching?
Yes No ²
Is research & development in this sector encouraged and supported?
Yes No
- We have **no statistics** related specifically to the teaching of foreign languages with the aid of Information and Communication Technologies (ICT)
- Statistics related **specifically** to the teaching of **foreign languages** with the aid of ICT in our country / region
 may be downloaded from <http://www>. _____
 are appended to this questionnaire as [name of file]
 have been sent by surface mail / airmail to the ICC address (Date:)
- General statistics related to teaching with the aid of ICT in our country / region
 may be downloaded from <http://www>. _____
 are appended to this questionnaire as [name of file]
 have been sent by surface mail / airmail to the ICC address (Date:)
- We **estimate** that _____ % of language classes in our country / region make regular use of ICT in foreign language training.

¹ The term ‘new technologies’ includes technologies in which the computer plays a central role, i.e. computer assisted language learning (CALL), the Internet and a variety of generic computer applications.

² Please tick appropriate box

B. Training and software programmes

1. We have no specific programmes which support foreign language teaching with the aid of Information and Communication Technologies (ICT)
2. At present we are running programmes which:
 - directly support foreign language teaching with the aid of ICT (= dedicated programmes)
 - with software programs
 - with teacher training programmes
 - with software programs and accompanying teacher training programmes
 - are generic in nature, but also support foreign language teaching with the aid of ICT
 - with software programs
 - with teacher training programmes
 - with software programs and accompanying teacher training programmes

C. Present ICT publishing activities

1. We are at present supporting the production of ICT language learning materials for the following languages (as a foreign language not as second language for, for example, immigrants/migrant workers):

Bulgarian	<input type="checkbox"/>	Greek	<input type="checkbox"/>	Norwegian	<input type="checkbox"/>
Czech	<input type="checkbox"/>	Hungarian	<input type="checkbox"/>	Polish	<input type="checkbox"/>
Danish	<input type="checkbox"/>	Icelandic	<input type="checkbox"/>	Portuguese	<input type="checkbox"/>
Dutch	<input type="checkbox"/>	Irish	<input type="checkbox"/>	Romanian	<input type="checkbox"/>
English	<input type="checkbox"/>	Italian	<input type="checkbox"/>	Slovak	<input type="checkbox"/>
Estonian	<input type="checkbox"/>	Latvian	<input type="checkbox"/>	Slovenian	<input type="checkbox"/>
Finnish	<input type="checkbox"/>	Letzeburgish	<input type="checkbox"/>	Spanish	<input type="checkbox"/>
French	<input type="checkbox"/>	Lithuanian	<input type="checkbox"/>	Swedish	<input type="checkbox"/>
German	<input type="checkbox"/>	Maltese	<input type="checkbox"/>		

for the following educational sectors

pre-school	<input type="checkbox"/>	Lower secondary	<input type="checkbox"/>	Vocational education	<input type="checkbox"/>	University	<input type="checkbox"/>
primary	<input type="checkbox"/>	Upper secondary	<input type="checkbox"/>	Adult and continuing education	<input type="checkbox"/>	Other tertiary	<input type="checkbox"/>

The following media are being used for our materials:

- CD ROM Internet
 DVD Floppy disks

Other (please specify) _____

The materials we have produced / are producing are:

Complete “stand-alone” course (s)	<input type="checkbox"/>
“stand-alone “ supplementary materials (e.g. listening comprehension, tests, etc.)	<input type="checkbox"/>
Supplementary materials for existing textbooks	<input type="checkbox"/>
Fully integrated materials for existing text books	<input type="checkbox"/>
Authoring tools	<input type="checkbox"/>
Other (please specify):	

2. We have not yet directly supported the production of ICT materials for foreign language learning, because

This is solely the domain of (commercial) publishers

Costs are too high There is no demand

There are insufficient ICT resources/facilities

Other (please specify) _____

D. Planned ICT publishing activities

1. We intend to support the production of ICT language learning materials for the following languages (as a foreign language not as second language for, for example, immigrants/ migrant workers):

Bulgarian	<input type="checkbox"/>	Greek	<input type="checkbox"/>	Norwegian	<input type="checkbox"/>
Czech	<input type="checkbox"/>	Hungarian	<input type="checkbox"/>	Polish	<input type="checkbox"/>
Danish	<input type="checkbox"/>	Icelandic	<input type="checkbox"/>	Portuguese	<input type="checkbox"/>
Dutch	<input type="checkbox"/>	Irish	<input type="checkbox"/>	Romanian	<input type="checkbox"/>
English	<input type="checkbox"/>	Italian	<input type="checkbox"/>	Slovak	<input type="checkbox"/>
Estonian	<input type="checkbox"/>	Latvian	<input type="checkbox"/>	Slovenian	<input type="checkbox"/>
Finnish	<input type="checkbox"/>	Letzeburgish	<input type="checkbox"/>	Spanish	<input type="checkbox"/>
French	<input type="checkbox"/>	Lithuanian	<input type="checkbox"/>	Swedish	<input type="checkbox"/>
German	<input type="checkbox"/>	Maltese	<input type="checkbox"/>		

for the following educational sectors

pre-school	<input type="checkbox"/>	Lower secondary	<input type="checkbox"/>	Vocational education	<input type="checkbox"/>	University	<input type="checkbox"/>
------------	--------------------------	-----------------	--------------------------	----------------------	--------------------------	------------	--------------------------

primary	<input type="checkbox"/>	Upper secondary	<input type="checkbox"/>	Adult and continuing education	<input type="checkbox"/>	Other tertiary	<input type="checkbox"/>
---------	--------------------------	-----------------	--------------------------	--------------------------------	--------------------------	----------------	--------------------------

We plan to use the following media for our materials:

- CD ROM Internet
 DVD Floppy disks
 Other (please specify) _____

The materials to be produced will be:

Complete “stand-alone” course (s)	<input type="checkbox"/>
“stand-alone” supplementary materials (e.g. listening comprehension, tests, etc.)	<input type="checkbox"/>
Supplementary materials for existing textbooks	<input type="checkbox"/>
Fully integrated materials for existing text books	<input type="checkbox"/>
Authoring tools	<input type="checkbox"/>
Other (please specify):	

E. Future perspectives vs. present use

- At present, the following approximate statistics reflect our estimate of present and projected use of ICT in foreign language learning / teaching in our country / region:

Primary sector			
Present:	%	Expected increase over the next ten years:	%
Secondary sector			
Present:	%	Expected increase over the next ten years:	%
Vocational schools			
Present:	%	Expected increase over the next ten years:	%
Adult & continuing education			
Present:	%	Expected increase over the next ten years:	%
University sector			
Present:	%	Expected increase over the next ten years:	%
Other tertiary			
Present:	%	Expected increase over the next ten years:	%

2. Conditions which would encourage the production and use of ICT foreign language learning materials

If you have any views regarding how to encourage the use and the development of ICT materials for foreign language learning, we would be grateful if you would record them here.

Appendix J: The EUROCALL / ECML Questionnaire

<div style="display: flex; align-items: center;"> <div style="background-color: black; color: white; padding: 5px; font-weight: bold; margin-right: 10px;">ICC</div> <div style="text-align: center;"> <p>INTERNATIONAL CERTIFICATE CONFERENCE</p> </div> </div> <p style="text-align: center; margin-top: 20px;">Hansaallee 150, D-60320 Frankfurt Fax. + 496956020168 Tel. 496956020166</p>	<p style="text-align: center;"><i>Survey on “The impact of the use of new information technologies and Internet on the teaching of foreign languages, and on the role of teachers of a foreign language.”</i></p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Questionnaire for EUROCALL participants

Name: _____

Institution: _____

Country: _____

Educational sector in which you most frequently work³:

Pre-school	<input type="checkbox"/>	Lower secondary	<input type="checkbox"/>	Vocational schools	<input type="checkbox"/>	University	<input type="checkbox"/>
Primary	<input type="checkbox"/>	Upper secondary	<input type="checkbox"/>	Adult and continuing education	<input type="checkbox"/>	Other tertiary	<input type="checkbox"/>

Languages taught at your institution as a foreign language

1. Please first tick (✓) the languages taught in your institution and then circle (○) those for which you use ICT⁴, e.g. English (☑)

Bulgarian	<input type="checkbox"/>	Greek	<input type="checkbox"/>	Norwegian	<input type="checkbox"/>
Czech	<input type="checkbox"/>	Hungarian	<input type="checkbox"/>	Polish	<input type="checkbox"/>
Danish	<input type="checkbox"/>	Icelandic	<input type="checkbox"/>	Portuguese	<input type="checkbox"/>
Dutch	<input type="checkbox"/>	Irish	<input type="checkbox"/>	Romanian	<input type="checkbox"/>
English	<input type="checkbox"/>	Italian	<input type="checkbox"/>	Slovak	<input type="checkbox"/>
Estonian	<input type="checkbox"/>	Latvian	<input type="checkbox"/>	Slovenian	<input type="checkbox"/>

³ Please check the appropriate boxes

⁴ We take ICT to mean all technologies in which the computer plays a central role, i.e. computer assisted language learning (CALL), the Internet and a variety of generic computer applications.

Finnish	<input type="checkbox"/>	Letzeburgish	<input type="checkbox"/>	Spanish	<input type="checkbox"/>
French	<input type="checkbox"/>	Lithuanian	<input type="checkbox"/>	Swedish	<input type="checkbox"/>
German	<input type="checkbox"/>	Maltese	<input type="checkbox"/>		

2. How many foreign language teaching staff work at your institution? _____
Of these, how many regularly use ICT for language teaching? _____
How many have had specific training to use ICT in their teaching? _____
Predominant use: Co-operative/collaborative learning Individual work
Internet research Whole class Remedial exercises
Other: _____
If colleagues do not use ICT in their teaching, what are their reasons?
Lack of sufficient resources Lack of adequate programs
Lack of familiarity with ICT Dislike /fear of ICT
Other: _____
3. Does your institution have a clearly formulated policy regarding the use of ICT in foreign language teaching? Yes No
Is research & development in this sector encouraged and supported? Yes No
4. Hardware /facilities
For teaching I/ we have access to a
... fully equipped computer laboratory dedicated to foreign language learning
... fully equipped computer laboratory shared with other departments
... computer in class for all learners
... computer in class for teacher only
... a (portable) computer for all classes linked to a multimedia projector
... CD player / audio cassette recorder
... DVD / video recorder
5. I regularly use the following in/for my teaching:
CD ROM Internet DVD Floppy disks
Platforms email Computer linked to multimedia projector
Audio cassettes/discs Video cassettes
Other (please specify) _____

6. Programs
I use the following types of ICT teaching materials/ tools:

Complete “stand-alone” / self-study courses	<input type="checkbox"/>
“Stand-alone” supplementary materials (e.g. listening comprehension, tests, etc.)	<input type="checkbox"/>

Supplementary materials for existing textbooks	<input type="checkbox"/>
Fully integrated materials for existing text books	<input type="checkbox"/>
Concordancers	<input type="checkbox"/>
Authoring tools (e.g. Hot Potatoes)	<input type="checkbox"/>
Other (please specify)	

Of these programs, ____ % were produced in our own institution. (Please circle types above.)

7. What proportion of time do you spend using ICT with your learners compared with “face-to-face” / more conventional teaching?

> 10% 10-30% 30-50% 50-70% 70-90% 100%

8. For which of the languages listed in 1. above do you urgently need new ICT materials?

What kind of materials / programs do you need?

9. In what area of ICT will you invest most in the next five years?

Equipment Staff Training Programs Other:

10. Could you please make three predictions about the future use of ICT in language teaching / learning over the next ten years?

Appendix K: The results of the EUROCALL / ECML Questionnaire

The following were the more detailed comments made by delegates referred to above in the body of the report:

Increase in the use of ICT

- The use of ICT will increase
- An increase in Web-based teaching tools and testing
- An increase in ICT used in non-language subjects
- Increased use of ICT as an integral part of teaching material (not just peripheral resource)
- Depending on the starting point - there will still be an increase - eventual levelling out and possibly a reduction of ICT use over the next 10 years
- Will increase a lot, almost every teacher will use it for teaching and all students for learning
- The use of ICT will increase in language teaching/learning (a broad basis instead of a few teachers)
- The choice of programs will increase, leading to problems
- The use of ICT in language learning will increase
- The use of ICT in language learning will increase, the quality of materials used will improve and there will be more demand for teacher training
- ICT usage in language teaching will definitely increase
- Teachers need deeper knowledge of methodology and skills for planning and organising different phases of studies, i.e. the sequence of face-to-face studies and independent, online studies
- general access to ICT in all classes
- eLearning will grow exponentially
- Software/servers for TOEIC/TOEFL study rapidly-expanding
- ICT will be widely used, as we can already see, and the Internet will prevail as one of the main tools

Integration

- Increased use of ICT as an integral part of teaching material (not just peripheral resource)
- It will be integrated into curricula of many E L T Programmes
- ICT will increasingly be integrated into the curriculum

- Increased integration with classroom teaching
- On- and off-line integration will improve
- Focus on curriculum integration
- ICT will be finally integrated into curricula
- ICT is becoming an increasingly integral part of language teaching
- ICT will be fully integrated, especially for programs and equipment become cheaper and technically more reliable
- Stronger integration of ICT/e Learning in class
- It is going to be a part of teaching, but not the whole thing

Greater appreciation and demand for *face-to-face* Learning

- In a few years the students will appreciate face-to-face teaching more again
- Is only a small part of teaching (more face-to-face)
- It will not totally replace face-to-face speaking practice
- Will add significantly to language teaching, will never replace personal contact

Improved chances for co-operation and collaborative Learning

- An emphasis on real communication/transnational co-operation between classes
- Emphasis on real communication/transnational co-operation between classes
- More individual/collaborative learning, less teacher-focus
- There is a lively network going on between language teachers through collaborative Web environments to join forces in language teaching
- collaborative teaching and learning models
- Communication and collaboration between LWUTL-language learners, team teaching
- Collaboration in ICT projects between universities
- Sharing of teacher developed materials, i.e. freeware
- Materials sharing is urgently needed
- More sharing of information and knowledge between teachers
- Sharing of teacher developed materials, i.e. freeware
- Less emphasis on subskill exercises (grammar/vocabulary) more emphasis on competencies in real life contexts (Video)
- Competence-based language learning environments will become more general

- new, materials, exercises, exchange between different institutions with their material packages and classes

Large-scale developments

- Locally networked taught packages and laboratories will be replaced by global access to Web resources
- Less teacher involvement in the production of learning materials
- move away from Microsoft

Acceptance / less resistance

- Less resistance to ICT in presence of enough/suitable facilities
- Will need more dedicated staff to develop ICT resources and University
- Students - and teachers - will use the technology more and more as a friend/support/information source
- Teachers will be more interested and involved
- All language teachers will use ICT in their language teaching
- Will be established as normal, everyday tool
- This process will never turn back
- ICT is seen as support

Miniaturisation and ready availability of user-friendly machines

- Dedicated labs will not be needed in this context - more laptops
- students using own computers rather than labs
- TV, computer and mobile phones are all connected, TV and PC are the same piece of equipment, you can order language programs using a mobile phone and you can watch them anywhere: either at work, home or school. You participate in discussions using a mobile phone. Language lessons are a sort of "virtual travelling" classes, where students enter into, for example a cafeteria in Paris. Reality is simulated through contemporary technology
- More user-friendly applications available, there are various ways to do things. People take user-friendly interfaces for granted) will not accept today's applications)
- Proper tool for each task. Very cheap mobile phones will be used for learning "anytime" - people do want to have more privacy and are much more conscious about it
- More students will have access to computers
- More computers in classrooms, and fewer labs
- We will develop mobile solutions

- Broadband access for a much larger number of people (good)

Improvement in technology

- High-speed, secure wireless allows students access anywhere
- Mobile technology - "labs without walls"
- Touch-screen technology, speech-recognition
- Electronic whiteboards - wonderful tool
- More streaming video and audio for greater emphasis on Listening/Speaking
- Equipment will become more available and sophisticated, wide use will ensue
- General access to ICT in all classes
- Media such a DVDs will gain significant importance
- Wireless (mobile) learning
- Video-conferencing

Acute need for teacher training

- The use of ICT in language learning will increase, the quality of materials used will improve and there will be more demand for teacher training
- Teacher training will be decisive for further progress
- Most crucial issue: staff training
- More staff will get involved in ICT through improved staff development and training
- With the necessary training, teachers will learn to implement ICT in a manner that helps the learners to structure their own learning
- More guided training of teachers, in their own classrooms
- It will be a challenge for teacher training as well
- More ICT-educated and -trained teachers
- Trainers will have to become managers
- Teachers will have better skills in using ICT
- Teachers will work in teams and have distinctive roles (developer, moderator, course administrator, etc.)
- ICT skills will be compulsory in teacher development

Increased emphasis on pedagogy

- The pedagogy/research base will develop, albeit slowly
- Technology will drive – pedagogy will follow (hopefully)

- More rapid development of technology and pedagogy keeps trailing behind
- Pedagogy will not change as rapidly as technology, leading to mismatch
- Closer connection between technology and pedagogy
- Focus on pedagogy not technology!
- Development depends on quality of match between ICT materials and pedagogy
- Teaching to separate wheat from chaff; New focus
- Focus on curriculum integration
- Establishment of CALL elements as a mandatory component at university level (TEFL studies, for instance)
- Focus more on content instead of technology
- Better background as a basis for good practice
- ICT in language learning will facilitate pedagogical innovation to the benefit of teachers and instructors
- The take the next step: new pedagogical methods
- Paradigm shift: from passive consumption to building content
- Information literacy is not computer training but to effectively search for and evaluate information

But ...

- Commercially produced materials will not be pedagogically advanced
- There will be many solutions and programs that have commercial value but are not pedagogically sound for language learning
- A lot of the material will be pedagogically suspect
- From technology hype to pedagogical reality: people control computers, not vice-versa. When we get more and more information on how to make the best use of computer enhanced technologies
- Will be dominated by huge , commercial enterprises

Fascination with technology will fade

- The enthusiasm of students will fade out
- EFL dominates language teaching
- Politics will continue to influence the way we teach through ICT and the kind of materials designed in-house
- Learner support systems will develop, albeit slowly
- Progress will vary greatly from one country to another

Increase in distance education, time- and place-independent

- Tele-education will increase, leading to time and place independent learning
- It will become more important, especially for distance teaching

- Distance Learning – connecting people
- E Learning for languages (demand driven, distributed) will take off, especially when possibilities for synchronous, spoken communication will improve
- At secondary level: stronger link between institutional and home learning, or
- Virtual learning will continue to grow
- More Web courses - but not the whole of language teaching will make use of ICT
- Interactive online learning
- Students will be able to study some of the courses completely via the net
- Individual working/distant learning
- Self access Web-based resources
- Autonomous learning will become much more important
- Most courses will be Web-based
- Competition between institutions for online language learners
- Efficient use of email between teacher/student
- It will change the way we teach
- Will enhance language learning
- Will change the role of teachers in language teaching
- Changes will be slow, as many senior members of faculty will be slow to change, as they have been in the past
- Re-emergence of structural aspects in CALL exercises (task-based, contextualised)
- More dynamics/Web-based materials
- More use of DVD materials
- Faster and more widespread access to technology
- As always, buzzword ICT will settle back into a more modest but realistic role (c.f. notional/functional approaches, lexicon emphasis, learning empowerment, negotiated syllabus, task-based learning, etc.)
- ICT will take over old-fashioned language labs

Change

- Web-based hypermedia materials will be generally available
- Emphasis laid on CMC
- Development of ICT to support listening skills and speaking
- Textbooks will be issued with increasingly sophisticated support material
- Students will rely increasingly on online support
- The number of students on Web-based courses will surpass those in conventional, classroom courses
- eLearning will become a common practice

- Virtual learning contexts will be very common
- Voice-recognition will not replace the teacher
- Incorporation of mobile/portable technology
- Authoring programs must become more user-friendly
- Might divide language teachers into two groups: users and non-users
- Individual work increasing