

## **A Descriptive Review of Mainline E-Learning Projects in the European Union: E-Learning Action Plan and E-Learning Program**

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### **Abstract**

This study's purpose was to survey the literature on European Union (EU) e-learning strategies specifically related to two mainline e-learning projects: the eLearning Action Plan and the E-Learning Program. Results of the evaluation and interpretation of the literature show that the European Commission has positively impacted European Union countries that participated in the projects through multiple and transversal actions and interactions, including: (a) providing necessary infrastructures and equipment; (b) implementing teacher training; (c) delivering quality content and services; (d) encouraging cooperation and networking; (e) promoting digital literacy; and (f) launching European virtual campuses and twinning schools (primary and secondary) via the Internet. The European Commission should continue to fund this critical research as a means of furthering Europe's move toward a knowledge-based society.

### **Introduction**

In the past ten years, the expansion of the Internet and related information and communication technologies has brought about unprecedented access to information and resources. On a global perspective, open and distance learning institutions as well as conventional academic institutions recognize the potential for e-learning to improve the quality of teaching and learning interactions (UNESCO, 2005).

The development of e-learning (Web-based learning) environments has resulted from the widespread use of the World Wide Web (WWW), a structure that supports distance learning and instruction by combining a broad scope of instructional tools with digital communication technology. The use of this e-learning environment as a means for distance education presents

opportunities previously unavailable for academic institutions to maximize their resources (e.g., economic, logistical, and instructional) (Terrell & Dringus, 2000). Given the existence of numerous definitions of e-learning, a review of definitions that are consistent with this study's purpose is appropriate.

E-learning can be defined as instruction delivered through computers using a myriad of modes such as the Internet, internal intranets, and accompanying CD ROMs with the following characteristics: (a) content is relevant to stated learning objectives, (b) specific instructional methods such as the use of examples and drill-and-practice are implemented to enable learning, (c) media elements such as text and graphics are used to deliver the instructional content and methods, and (d) instruction is designed to build new knowledge and skills required to achieve individual learning goals as well as to improve overall organizational performance (Muthukumar, 2004; Clark & Mayer, 2003). Furthermore, the European Commission defines e-learning as "the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services as well as remote exchange and collaboration" (Reding, 2003).

#### *European Union Projects: Overview of Outcomes*

In recent years, the Lisbon (2000), Stockholm (2001) and Barcelona (2002) European Councils along with heads of state and other government leaders within the European Union called for sustained action to integrate information and communication technologies into education and training systems. In particular, the Lisbon European Council in March 2000 called for the adaptation of education and training systems to the knowledge society. Subsequently, Stockholm and Barcelona's spring councils further developed the Lisbon council's conclusions and stressed the importance of the improvement and effective use of information and communication technologies for the European knowledge society. Following the Lisbon council summit, the European Commission launched the e-Learning Initiative. Soon thereafter the Commission started

the eLearning Action Plan (2001-2004). In December 2003, the European Parliament and the Council accepted the e-Learning Program to be implemented in 2004-2006.

The purpose of this study was to conduct a literature review of the e-learning strategies in European Union (EU), specifically the two mainline EU e-learning projects: the eLearning Action Plan and the E-Learning Program.

### *The eLearning Action Plan*

During the years of 2002-2004, the eLearning Action Plan served an important role in efforts to coordinate European activities related to the use of information and communication technologies (ICT) in education and training environments. Most European national action plans reference the eLearning Action Plan as a source of guidance and inspiration. As e-learning gains credibility, a range of European policy documents and initiatives cite the action plan as a useful tool for achieving better access to lifelong learning and education for all (European Commission, 2005). The authors of the eLearning Action Plan defined four priority areas for the years of 2002-2004: (a) infrastructures and equipment, (b) content and services, (c) teacher training, and (d) European cooperation and networking.

*Infrastructures and equipment.* The provision of infrastructure and equipment was the first action line of the eLearning Action Plan, and much work has been accomplished in this area. As of March 2002, 93% of EU schools were connected to the Internet, an increase over the previous connection rate of 80% in May 2001. From 2001 to 2002, the number of Internet-connected computers available per 100 students increased by 50%. More than half of Europe's teachers have been trained to use computers and/or the Internet. Additionally, The European Commission has co-financed high-speed Internet interconnection of universities and research institutes. This European research network is now the fastest connection in the world, connecting 32 European countries

(Reding, 2003). Furthermore, the eLearning Action Plan has significantly impacted the development of ICT infrastructures and the installation of equipment for primary schools. For example, 2,002 primary schools out of 5,997 in Greece were equipped in 2002 with a new computer lab. The remaining schools are expected to be equipped during the next 2 years (European Commission, 2003).

The eEurope 2005 Action Plan was launched to continue the work of the eLearning Action Plan, promoting the use of broadband communications and services as a means of improving the effectiveness and efficiency of public services. The eEurope 2005 Action Plan reinforces and concentrates its efforts on three policy priorities: (a) eLearning, (b) eGovernment, and (c) eHealth. The action plan defines actions designed to support the re-skilling of the workforce using e-learning and the deployment of virtual campuses (European Commission, 2004a). The eLearning Action Plan remains instrumental in achieving these expanded objectives and will further strengthen support for these priority areas through its contributions in the areas of digital literacy and virtual campuses.

*Content and services.* The European Commission is not empowered to be involved in either the production of content or the implementation of new services. However, the Commission can do much to create the right conditions for sustainable markets and public investments. In particular, the European Commission takes into account the issues that are related to intellectual property rights, copyright agreements, new distribution methods and the promotion of open standards. The eLearning Action plan has identified three priority areas: (a) modern languages, (b) sciences technology and society, and (c) culture and citizenship. Calls for proposals under the eLearning Initiative encouraged pilot projects in these important areas, and Socrates, Leonardo da Vinci, IST and eContent Programs have provided support for several relevant projects. These entities also

encouraged the launching of strategic projects that addressed key issues for quality in e-learning (Reding, 2003).

Through the e-learning action project European Quality Observatory (EQO), the European Commission currently provides more than 2 million Euros in funding for initiatives that address quality in e-learning. The main objective of EQO is to provide a central facility that can enable developers, managers, administrators, decision-makers and end users to find an approach that suits their organizations' needs ([www.eqo.info](http://www.eqo.info)). Additionally, several projects have been launched under the content and services component of the EQO. The two most important projects are related to the quality of e-learning ([www.qual-elearning.net](http://www.qual-elearning.net)): Supporting Excellence in e-learning ([www.seelnet.org](http://www.seelnet.org)) and Suitable Environment for the Evaluation of Quality in e-learning ([www.education-observatories.net/seequel/index](http://www.education-observatories.net/seequel/index)) (European Commission, 2004c).

*Teacher training.* Since the publication of the eLearning Action Plan, awareness of the need for training in the pedagogical use of ICT has increased. In most European countries, initial efforts were concentrated in the areas of information technology (IT) equipment and the manipulation of software packages, but recent emphasis has shifted more toward a pedagogical and management skills approach (Reding, 2003). According to the results of the Euro Barometer (2002) survey, most teachers use a computer with an Internet connection at home, and they are convinced that the Internet has already or soon will change their teaching methods.

Several EU member states are working successfully in the area of developing teacher training schemas. In addition, the European Commission is funding numerous teacher training projects under the education and research programs as well as under the eLearning Initiative (Reading, 2003). These projects include:

- Teacher's Professional Development, (u TEACHER): uTEACHER aims both at producing a peer review concerning teachers' ICT for education professional

development in Europe and at collaboratively defining a shared framework for teachers' professional development, as a tool for harmonizing EU policies and practice (Contact person: Vittorio Midoro, [midoro@itd.cnr.it](mailto:midoro@itd.cnr.it)).

- Improving Continuing Education and Training through E-Learning (ICETEL): The project aims at improving the application of Open & Distance Learning and e-learning in University Continuing Education (UCE) by managers, teachers and trainers through the exchange of expertise and experience. This exchange will take place via the Internet and through face-to-face training sessions. The final product will be a thematic online-guide on the topic of applying eLearning in UCE (Contact person: Franz Reichl, [rektorat@ud.tuwien.ac.at](mailto:rektorat@ud.tuwien.ac.at)).
- A European Lifelong Learning System on ICT in Education for Pioneer Teachers (ULEARN): This project aims at creating a stable community of "pioneer teachers" in Europe through a system which supports teachers' lifelong learning, sharing knowledge and cooperation. ULEARN deals with the definition and design of an organizational model for a European virtual system of excellence on ICT in education, the definition of a common European curriculum of ICT skills in education, the implementation of a pilot of the system, the definition of a transferability strategy to extend the pilot to a larger scale and to make the system evolve into a stable structure (<http://ulearn.itd.ge.cnr.it/>).
- European Training of Trainers Network (eTTnet): eTTnet is a network dedicated to improving the concrete contribution of ICT to teacher training and also a means of fostering exchanges of best practices. eTTnet's emphasis is in the following areas: (a) e-learning for teachers and trainers, (b) professionalizing of electronic village teachers, (c)

validation of non-formal learning for teachers, and (d) quality in training for teachers and trainers. (<http://communityzero.cedefop.com>).

- Internet laboratory (ILAB): Another major teacher training project is ILAB. The ILAB project is developing a virtual laboratory for researchers, teachers and trainers who are involved in the use of information and communication technologies in education and training (<http://www.theknownet.com/>).

The need for training often accompanies the need for organizational change within education and training institutions. Future efforts will need to focus more on the human and organizational factors which make e-learning sustainable, effective and economically viable in the long-term (European Commission, 2003).

The eLearning Action Plan has significantly impacted ICT training for teachers in some European countries. In Greece, for example, 50% of primary education teachers have received in-service training while the remaining 50% is expected to receive in-service training during the coming year (European Commission, 2003).

*European cooperation and networking.* Improving cooperation and networking within Europe's education and training system is a core principle of the eLearning Action Plan that has also been emphasized in the European Commission's proposed program for 2004-2006. Under the eLearning Action Plan, close cooperation has been initiated with member states in several fields, including the fields of teacher education, science education, new learning environments, and virtual universities (Reding, 2003).

A number of activities initiated under the eLearning Action Plan continue to bring together policy makers and experts for the purpose of addressing key issues in e-learning. Several projects launched under the eLearning Initiative in 2002 focus on building European communities by arranging face-to-face meetings and coordinating ongoing virtual discussions. The eLearning

Interservice Group, the eLearning National Experts Group and the ICT experts group working on the objectives report are several examples of important collaborations occurring as a result of the eLearning Action Plan (European Commission, 2003). Additionally, some projects have been undertaken that involve the collaborative work of multinational teams working specifically on European experiments aimed at developing e-learning methods..

Another example of collaboration in the field of e-learning, as initiated by the eLearning Action Plan, includes the strengthening and improvement of cooperation with the European Schoolnet ([www.eun.org](http://www.eun.org)). The European Schoolnet (EUN) is an all-encompassing network that brings together 23 ministries of education throughout Europe while linking schools, teachers and school managers. Schoolnet provides valuable insight and resources for policy makers and education professionals who are focused on incorporating ICT into educational environments (European Commission, 2005b).

The eLearning Action Plan has influenced the launching of numerous other projects related to European cooperation and networking. The most noteworthy projects include:

- The European Portfolio Initiatives Coordination Committee (EPICC) is an initiative to establish Europe as a world leader in ePortfolio activities in all sectors of education and training (Contact person: Serge Ravet, [serge.ravet@eife-1.org](mailto:serge.ravet@eife-1.org)).
- Support for Use of Open-Source Learning Management Systems (JOIN) provides consultancy and support for organizations and institutions that employ open-source Learning Management Systems for developing a wide range products, including the choice of a platform, didactics, and organizational factors (Contact person: Alexandra Toedt, [alexandra.toedt@uni-koeln.de](mailto:alexandra.toedt@uni-koeln.de)).

- The pilot projects/virtual centres collaboration (ENSEL) supports collaboration among ongoing pilot projects/ virtual centres that are conducted within, and funded by, the EU (Contact person: Gillian Alexander, [Gillian.Alexander@henleymc.ac.uk](mailto:Gillian.Alexander@henleymc.ac.uk)).
- A Special Interest Group for the Game-based Learning in Universities and lifelong learning (SIG-GLUE) seek to establish structured collaborations and research in game-based learning by creating tools that support the distribution of knowledge, skills, and experience, monitoring the quality and establishing a certification stamp for game-based learning resources, and contributing to innovation throughout European institutions and Universities (Contact person: Dr. Maja Pivec, [maja.pivec@fh-joanneum.at](mailto:maja.pivec@fh-joanneum.at)).
- ReCOIL seeks to serve as an access point for collaborative inquiry learning by introducing collaborative inquiry in European schools and creating a synthesis among three European projects (Co-Lab, ModellingSpace and Viten) in European education (European Commission, 2005d).
- European accreditation for e-learning (SIG DLAE) aims synthesizes recommendations for a European accreditation system in eLearning (Contact person: Amaury Legait, [legait@mail.enpc.fr](mailto:legait@mail.enpc.fr)).
- The European eCompetence Initiative (Eu[eComp]Int) seeks to set appropriate qualifications for academic staff in higher education) in the use of ICT for teaching and learning. (Contact person: Dirk Schneckenberg, [dschneckenberg@hdz.uni-dortmund.de](mailto:dschneckenberg@hdz.uni-dortmund.de)).

### *The eLearning Program*

The eLearning Program represents another significant step toward realizing the vision of information and communication technology empowering lifelong learning. The eLearning Program focuses on a set of actions in high priority areas, which were chosen for their strategic relevance to the modernization of Europe's education and training systems. There are four action components of the eLearning Program: (a) promoting digital literacy, (b) adding European virtual campuses, (c) furthering the e-Twinning of schools, and (d) transversal actions for promoting e-learning in Europe.

*Promoting digital literacy.* The promoting digital literacy component encourages the acquisition of new skills and knowledge that all persons need for professional development and for active participation in an information-driven society. This component is important because of its potential for expanding access to learning. Those persons who are unable to access traditional education and training campuses due to their geographical location, socio-economic status or special needs can benefit greatly from becoming literate in the digital technologies that make Web-based learning possible (European Commission, 2004b).

The eLearning Program is credited with the launching of numerous projects related to digital literacy, including:

- E-Learning for visually impaired persons (E-Learn-VIP): The main objective of this project is to enable blind people and people with visual handicaps the access to e-learning courses. This objective will be achieved by three further objectives: - to evaluate existing e-learning courses in all countries of the partner-organizations by unique measures, considering the special needs of people with visual handicaps, - to publish these results with detailed description of the available courses and service providers on a national and trans-national level, - to develop an innovative guideline

for service-providers and for developer of multimedia and e-learning platforms

(<http://www.e-learn-vip.org>).

- Benchmarking Regional Strategies for Technological Literacy (BENTLI): The main objective of the BENTLI project is to identify good practice and a set of common indicators to measure the impact of the Digital Literacy Strategies of the participating regions, through a benchmarking and impact evaluation exercise, so as to establish a solid basis for continuous collaboration (Contact person: Manuel Fdez Mejías, [manon@fundecyt.es](mailto:manon@fundecyt.es)).
- Child ICT Pages (ChIPs): This project is aimed at disseminating digital literacy (target group: children from 5 to 12 years old) and will include the individuation, listing and dissemination of good practices ( digital resources of on and off-line products aimed at developing ICT skills and its responsible use) about the promotion of digital literacy within the EU with the above-mentioned target group (Contact person: Esposito Antonio, [a.esposito@comune.lecce.it](mailto:a.esposito@comune.lecce.it)).
- Digital Video Clips by Ethnic Minorities (XenoCLIPSe): One of the conclusions of the ongoing eCLIPse project is that the minority groups themselves need to be involved and empowered through their presence in the media, both as objects and as subjects of information. This new project envisages empowerment through creating access to new technologies for immigrants. The main idea is to allow people who have difficulties accessing new media and technologies to make and distribute their own information in an easy way and to pass on this knowledge and skills to their peers (Contact person: Antonio Bartolomé. [abartolome@lmi.ub.es](mailto:abartolome@lmi.ub.es)).

- European Framework for Digital Literacy (DigEuLit): The main objectives of the project are: - to identify previous and ongoing projects, actions, and research relevant to digital literacy, and to analyze the results of such projects and actions; - to map the conceptual landscape of digital literacy and define concepts and to prepare a framework for digital literacy, onto which existing and planned digital literacy schemes and programmes throughout Europe can be mapped; - to identify examples of positive practice in the digital literacy area; - to identify the elements of a toolkit to assist digital literacy providers in using the framework, and create exemplars of some of the proposed tools; and then demonstrate successful use of the framework and the sample tools with a range of target groups; - to identify steps to sustain the framework and develop the toolkit beyond the project and finally to disseminate the those and other products throughout Europe (Contact person: Allan Martin [a.martin@educ.gla.ac.uk](mailto:a.martin@educ.gla.ac.uk)).
- E-learning and Social Inclusion for People with Disability (e-ability): The main objectives of this project are: - to identify and disseminate good practices in the promotion of digital literacy aimed to people with psychological disability, as specific target group. - to provide those people with digital literacy essential skills needed to take an active part in the knowledge society and the new media culture. - to influence local and regional policies, informing them about the importance of including people with psychological disability in the design of e-learning policies (Contact person: Pablo Sánchez Pérez, [psp@intras.es](mailto:psp@intras.es)).
- Digital litERacy open to impAirments (DEA): DEA project aims at the individuation, cataloguing and dissemination of good practices (in terms of

methodologies used in successful case studies) developed by projects concerning the promotion of digital literacy targeted at disabled people (Contact person: Prof. Paolo Paolini, [paolo.paolini@polimi.it](mailto:paolo.paolini@polimi.it)).

- eLearning Inventory for Small and Handicraft Enterprises(eLISHE): The proposed project aims to promote digital literacy in the small and handicraft enterprises by collecting, identifying/evaluating, and exhibiting best practice in ICT adoption and skills and capabilities development in relation to new technologies, as required for their daily business activities (Contact person: Katerina Kokla, [kokla@eommex.gr](mailto:kokla@eommex.gr)).

*Adding European virtual campuses.* The priority of this component is to add a virtual dimension to European cooperation in higher education by encouraging the development of new organizational models for European universities (virtual campuses) and new organizational models for European exchange and sharing schemes (virtual mobility). This component of the eLearning Program will build on existing cooperation frameworks such as the Erasmus program, providing an e-learning component.

The virtual campus component has helped launch numerous projects, including:

- The REal Virtual Erasmus (REVE) seeks to enhance the potential affects of the Erasmus programme by providing support for a comprehensive virtual Erasmus action (Contact person: G. Van der Perre, [info@europace.be](mailto:info@europace.be)).
- The e-Learning Network for Teacher Training (eLene–TT) aims to help HE teachers use ICT for instruction by developing a Virtual Learning Resource Centre to provide guidelines and resources for teacher trainers and teachers. Partners throughout Europe will develop student-driven teacher training, testing tools, and

instructional approaches (Contact person: Deborah Arnold, [Deborah.Arnold@univ-nancy2.fr](mailto:Deborah.Arnold@univ-nancy2.fr)).

- E-learning per le Lingue e le Letterature Europee (ELLEU): Study an organizational model for the teaching of Italian language, literature and culture abroad within the European Union. This model will integrate e-learning into traditional teaching methods in a perspective of international co-operation (Contact person: Mirko Tavoni [direttore@italicon.it](mailto:direttore@italicon.it)).
- The European Agency for EASY access to virtual campus (EASY) will provide easy access to virtual campuses by providing information services, training, and counseling to promote virtual mobility as a complementary or option to physical mobility by using ICT, establishing an interactive website, and developing new online tools for evaluating university campuses (Contact person: Antimo Luigi Farro, [antimoluigi.farro@uniroma1.it](mailto:antimoluigi.farro@uniroma1.it)).
- The League of European Research Universities (e-LERU), created by a LERU, plan to establish a common virtual campus with common e-learning resources to enable each partner university to offer its students virtual mobility in addition to physical mobility (Contact person: Alain Jaillet, [alain.jaillet@ulpmm.u-strasbg.fr](mailto:alain.jaillet@ulpmm.u-strasbg.fr)).
- The European Teachers and Trainers campus (eTT.Campus) aims to develop and consolidate a European Virtual Campus for teachers and trainers. Collaborative projects would be used across borders as the main learning strategy, although learning and reference materials would be available in its collaborative learning environment (Contact person: Kristiina Volmari, [kristiina.volmari@oph.fi](mailto:kristiina.volmari@oph.fi)).

- Virtual Curricula Through Reliable InterOperating University Systems (VICTORIOUS) will determine the feasibility of three different key areas for providing the large-scale implementation of virtual mobility: quality, interoperability/open standards, and digital repositories and resources (Contact person: Koen Delaere [delaware@coimbra-group.be](mailto:delaware@coimbra-group.be)).
- Modeling Advice and Support Services to Integrate Virtual Component in Higher Education (MASSIVE) will design a model for supporting services in European traditional Universities to implement the virtual component of instruction (Contact person: Oscar Cordon, [ocordon@decsai.ugr.es](mailto:ocordon@decsai.ugr.es)).
- The Virtual COPERNICUS-CAMPUS will develop a European Virtual Campus on Sustainable Development. The COPERNICUS-CAMPUS, consisting of five experienced European universities in the use of E-learning for sustainable development, is responsible for this project (Contact person: Hans-Peter Winkelmann, [hpw@copernicus-campus.org](mailto:hpw@copernicus-campus.org)).
- VIPA is a virtual campus for virtual space design established for European architects. This project will develop a transnational virtual campus that includes an e-learning and research platform for European universities offering programs in Virtual Space Design (Contact person: Orhan Kipcak, [office@adm.at](mailto:office@adm.at)).

*Furthering the e-Twinning of schools.* This component's objective is to develop and strengthen networking among schools. During their time in secondary schools, all young Europeans should have the opportunity to participate, along with their teachers, in an educational project with their peers in other European countries. These early collaborative experiences could prove to be decisive in fostering the European model of a multilingual and multicultural society.

Internet-based learning communities can contribute greatly to improved intercultural awareness, dialogue, and understanding among young people. The e-Twinning of schools can also contribute to the updating of teachers' and trainers' professional skills in the pedagogical applications and collaborative uses of ICT (European Commission, 2004d).

In 2004, the European Schoolnet (EUN) released the eTwinning portal [www.etwinning.net](http://www.etwinning.net) on behalf of the European Commission's Directorate General for Education and Culture. The EUN has launched the eTwinning portal in 20 languages. On the portal, educators should find resources, advice, help and information for preparing an eTwinning school activity, including a simple partner-finding forum and a set of ideas. The portal provides school staff with information about the new eTwinning initiative as well as a European help desk for supporting eTwinning activities and answering questions related to pedagogical issues. The Web site can be accessed at:

<http://www.etwinning.net/ww/en/pub/etwinning/index.htm>. Approximately 3,000 schools have joined the eTwinning Portal since its creation (European Commission, 2005b). The eTwinning European portal is closely linked to the portals maintained at the national level by the different National Support Service (NSS) offices.

*Transversal actions for promoting e-learning in Europe.* Building on the eLearning Action Plan, these actions aim to promote the best practice, products and services which stem from many projects and programs that have been funded at the European or member-state level and that strengthen cooperation between all those involved. Particular emphasis is placed on disseminating the results of e-learning projects and other information relevant to the support of European networks, surveys, studies, events, and cooperation with existing international projects such as the Organization for Economic Cooperation and Development (OECD) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) (European Commission, 2004b).

There are five main projects launched under the transversal actions component. They are:

- TRIANGLE will contribute to the quality of e-learning in Europe by building a sustainable environment (Contact person: Ulf-Daniel Ehlers, [uehlers@wi-inf.uni-essen.de](mailto:uehlers@wi-inf.uni-essen.de)).
- E-xcellence will create standards of excellence for assessment tools for programme and institutions, develop improvement tools (e.g., internal quality care system), and create a tool for accrediting e-learning activities (Contact person: George Ubachs, [george.ubachs@eadtu.nl](mailto:george.ubachs@eadtu.nl)).
- Quality, Interoperability and Standards in e-learning (QUIS) will promote student-centered models of learning using PBL or a more socioconstructivistic approach to instructional design (Contact person: Thorleif Hjeltnes, [thorleif@tisip.no](mailto:thorleif@tisip.no)).
- Horizontal E-Learning Integrated Observation System (HELIOS) will establish and consolidate a sustainable observation platform to monitor the progress of e-Learning in Europe and create a means to forecast the development of e-learning, thus closing the gap between copiously fragmented data related to e-Learning policies, practices, and research (Contact person: Nikitas Kastis [menon@menon.org](mailto:menon@menon.org)).
- Learning Interoperability Framework for Europe (LIFE) seeks to improve the interoperability and use of e-learning standards by adopting Learning Technology standards (Contact person: Ulf Lundin, [ulf.lundin@eun.org](mailto:ulf.lundin@eun.org)).

*Funding and budget distribution.* Funding for the eLearning Program is 44 million EUR.

Following is the budget distribution for all components:

1. e-learning for promoting digital literacy: approximately 10% of total budget;
2. European virtual campuses: approxiamtely 30% of total budget;

3. e-twinning of schools and promotion of teacher training: approximately 45% of total budget;
4. transversal actions and monitoring of eLearning Action Plan: maximum 7.5% of total budget;
5. technical and administrative assistance: maximum 7.5% of total budget. (Official Journal of the European Union, 2003)

### Conclusion

E-learning in Europe has focused on instituting, grouping and personal practices that provides positive benefits (learning, sharing, discussion, collaborative working, understanding each other, cultural respect, life long learning and etc.) for students, teachers, workers, schools, non-governmental organizations, and public services.

European Councils are seeking to use ICT and the WWW strategically, not merely as means for everyday use.

The eLearning Action Plan and the eLearning Program have been used to integrate ICT for education and training in European countries. The use of these strategies suggests that e-learning yields positive results. The European Commission has assumed an important role in planning, designing, implementing, and evaluating e-learning and in financially supporting its widespread implementation.

The eLearning Action Plan plays an important role in guiding European e-learning for achieving established goals and provides an important resource for member states. This plan also enables the exchange of knowledge and experiences related to key factors in using ICT for education and training, including financing infrastructures, purchasing equipment, providing network access, training strategies, supporting the development of instructional content and services, evaluating teaching methodology, and advancing further research.

Educators' understanding of the contribution that ICT and the Internet can make to learning is increasing with the application and the sharing of best practice. However, technology continues to advance, increasing the need for expanded research on the critical technological, pedagogical, social-economical and cultural impacts on the EU countries. The European Commission should continue to fund this critical research as a means of furthering Europe's move toward a knowledge-based society.

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