

Developing ICT-rich lifelong learning opportunities through EU-projects

DECTUG case study 1997-2003

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Abstract: The article presents DECTUG experiences since 1997 in the subject of Distance Education and Lifelong Learning. The main tasks of DECTUG are creating access to study materials, corresponding lessons scripts and communication environment using LAN (Local Area network), MAN (Metropolitan Area Network) and WAN (Wide Area Network) facilities. Distance education course modules are mainly prepared by the international teams working in EU projects. Example courses developed under Phare Multi-country Programme in Distance Education, Leonardo da Vinci and Socrates Programmes are presented. The opportunity for offering the developed courses for lifelong learners is discussed and example failure factors are presented.

Key words: distance education, European Union projects, Lifelong Learning, sustainable development, virtual learning organisation

DECTUG - WHAT IS IT ALL ABOUT

The Distance Education Centre at Gdansk University of Technology (DECTUG) is a special unit dedicated to the development and delivery of courses offered in Open and Distance Learning (ODL) mode. It was established by the Rector of the University on 30th April 1997 with support from EU funds (Phare Multi-country Programme for Distance Education, 1998-1999). The main objective of the Distance Education Centre is to give

the access for the University's students and staff to Internet study materials, correspondence lessons, scripts and communication environments. DECTUG is responsible for developing distance education course modules and adaptation of existing European Union distance education course modules for local delivery. The courses delivered by DECTUG are mainly Internet based. Course materials are published on the Web and students and tutors communicate by e-mails or through newsgroups. Students come both from inside and outside the University, including students from partner institutions and independent people willing to take part in courses. Most of the DECTUG staff consists of people that are contracted for specific tasks, they are not full time employees, and their responsibilities cover mainly management and technical support. Course preparation and tutoring is done by subject experts hired only for the duration of the given course. Comprehensive details about DECTUG are available in English at URL: http://www.dec.pg.gda.pl/dec/index.phtml?id=index_en

DECTUG IN PHARE PROJECTS (1998-2000)

The objective of the first pillar of the Phare Multi-country Programme for Distance Education (Grabowska 2000 A) was to support the establishment of distance education infrastructures in the Phare partner countries. It was an organisationally, administratively and technologically complex and complicated task to achieve this objective and it was possible only because of the huge effort invested by the participating institutions in the Phare countries.

It included three main, closely inter-related and inter-dependent, sub-projects, 1) the establishment of National Centres for Distance and National Contact Points in each country; 2) the establishment of 40 regional Phare ODL Study Centres (or distance education study centres), with state of the art equipment and networks to be used for development and delivery of ODL courses, and ODL reference libraries; 3) the building-up of ODL expertise and know-how within the National Centres for Distance Education and within the Phare ODL Study Centres and their host institutions.

The background of the project is based on the European Union initiative and co-operation managed by the European Training Foundation (ETF) in Italy (<http://www.etf.eu.int/>). The project was co-ordinated by the Programme Co-ordination Unit (PCU) in Hungary. Overall indicative budget was about 15 M-EUR (Pilot + Follow-up).

The project started in 1993-94 with the launch of a pilot project, preceded by a feasibility study, and later on a massive follow-up project was accepted by the European Commission. The three phases of the project supported

concept developed in early 1990s, followed by a pilot phase (1994-1996), and further follow-up (1996-2000). Implementation of the follow-up programme was the most significant phase and it covered three main streams. The infrastructure development supported the consolidation of the National Contact Point networks, and establishing and equipping of 40 ODL Study Centres with associated human resources development. This supported local, regional and trans-national course development with a European studies programme. The overall programme enabled strategy development for information and communication technologies, ODL markets, legislation, accreditation and quality assurance.

In terms of national policies, the most comprehensive initiative was the establishment, in the early 1990's, of 15 distance education centres. These facilities were located within a network of 50 local Continuing Education Centres, which mainly provide vocational and basic education to adults, including unemployed people seeking re-training. Three of these Continuing Education Centres are hosting Phare ODL Study Centres (Zielona Gora, Bytom, Krosno), with five located within universities (Gdansk, Kielce, Krakow, Nowy Sacz, Warszawa). A national database of distance education study centres was established by DECTUG. Several course packages were developed by Phare ODL Study Centres in Poland. The Centre in Nowy Sacz offers 5 courses in 'Operations Research', 'Internet and Intranet', 'Basic Finance', 'Investment' and 'Computer Networks'. The Centre in Krakow developed courses in mathematics and physics. Gdansk (DECTUG) being an Authorised Autodesk Training Centre offers 'AutoCAD for beginners in ODL mode'. Throughout the four years of the Phare Multi-country Programme, DECTUG was involved in eight pilot projects dedicated to development and delivery of Distance Learning Modules.

Finally the Phare ODL Study Centres have developed active links and partnerships with other European ODL organisations. Most Centres are members of EDEN (European Distance and E-Learning Network). Bilateral partnerships include organisations in the United Kingdom, Finland, France, USA and others.

DECTUG IN OTHER EU PROJECTS (1999-2005)

After finishing PHARE projects a new perspective for continuation distance and lifelong learning activities appeared when Poland was accepted as a formal partner in the Leonardo da Vinci and Socrates. Since 1998 DECTUG has been involved in five Leonardo da Vinci programs (Grabowska 2003) and three Socrates projects. Since 2003 DECTUG is also a partner of Research Framework Programme 5 - Centre for Urban

Construction and Rehabilitation: Technology Transfer, Research and Education (CURE).

EXAMPLE PROJECTS AND EXAMPLE COURSES

The purpose of the **NEPOLD** project developed by Helsinki University of Technology, DIPOLI and Technical University of Gdansk, Distance Education Centre cluster was to adapt the English for Environmental Awareness (EEA) Course. This course was originally developed in Finland.

Most of the course material is available on the course WWW pages. The course participants are required to write three different types of papers (an argumentative and an analytical text plus a report). The dedicated WBT platform Web was developed for the course delivery. The participants can take part in the video conference. The learners' motivation for the course is based on the study credits (ECTS 3) they obtain towards their final diplomas.

To date, only 8 students have taken part in the course, the possible reasons are a lack of promotion and English teachers willing to work online.

TeleCAD - Teleworkers Training for CAD Systems Users project consisted of developing a dedicated platform on the Internet for project developers (for management purpose, exchanging ideas, developing the project contents, monitoring the results) and a training methodology for teleworkers working with CAD systems. To support the teleworkers a dedicated internet platform was developed with electronic-based teaching materials (CD-ROM), special guides for tutors and learners in English and in national languages. Example courses were delivered for teleworkers working with CAD systems for different target groups (university students in Poland, post secondary students in Italy, young workers in Finland and Greece). The AutoCAD handbook (online, CD) is constantly updated (Klosowski P., Grabowska A. 2002).

MDEC- Multimedia Distance English Courses for Polish Users in Legal, Banking and Finance, Science and Technology, and Safety Training Sectors with Elements of European Union Regulations and Standards fostered the development of methods of self-training at the workplace, including open and distance learning and training, in particular to facilitate access to continuing vocational training. The supporting activities were oriented at developing linguistic skills as part of vocational training. These courses were planned to be used for teaching students at universities, in continuing education institutions and should have been disseminated into other groups

of users. The project was based on advanced ICT technology (WWW, e-mail, multimedia).

The final products of this project were planned to consist of a software system for Distance Education to provide a package of six multimedia specialised English course modules placed on the web. The courses include General English; Legal English; Banking English; Internet Technology; Science and Technology; Occupational Safety.

The courses are designed for university students to be used, in the first phase, as an addition to traditional courses and in the long term included in the curriculum. At the moment the courses are not available from DECTUG server and they are not used by the project promoter. The possible reason is integration of the learning modules with Learning Management System.

AYTEM - Accompanying a Young Teacher into Educational Market by Distance Course Mode project was intended to provide young and old teachers with training, allowing them to improve their methods based on new ideas and experiences of colleagues from different parts of their countries and the world. The project provided course materials for teachers and a platform the course delivery. Tutors' training in partner countries was also one of the project objectives. There were 10 partners organisations from 6 countries involved in the project development.

The educational CD ROM was developed and Web Based Training environment Luvit is recommended for course delivery. No Polish implementation has been done as yet.

LinguaWeb – for Small and Medium Enterprises project was aimed to foster co-operation between small and medium businesses based in different regions of Europe. This could have been achieved by providing the interested companies with information about the local culture, society and language. The project implemented and validated a LinguaWeb Service providing information about local/regional language variants and authentic samples, with authentic multimedia documents from local/regional business, society and culture-related communication contexts, and demonstration modules for business, society and culture-embedded language learning extensions.

In the lifetime of the project, the development and evaluation of a prototype in 4 languages (English, German, Irish and Polish) involving “chamber of commerce” type institutions in Germany, Ireland and Poland was planned. Nowadays, LinguaWeb addresses the communication and language training needs of SMEs in European business contexts.

PROMETHEUS was aimed to prepare modules for teachers and other educational staff from different educational institutions. The modules cover the necessary information in order to be able to work as managers of European projects.

In the project the following training modules were developed to cover: Aspects of European Integration; the Use of New Information and Communication Technologies in European Project Preparation; and the Co-ordination and Management of European Projects.

The project's target groups are schoolteachers; heads of schools; potential project co-ordinators at schools; students in higher education; and educational staff and professionals responsible for in-service teacher training.

Meeting of Generations project's goal was to develop the teaching and learning methods for education for seniors in order to exchange of media and social competence between the generations.

The planned outputs were focused on four areas with the development of curricula/concepts for the preparation of student teachers; workshops with the seniors in places with a social and communicative atmosphere for the "Meeting of Generations"; a seniors' web-service for online-studying; and a training-manual for the dissemination of the concept, available in all languages of the partners. Seniors are the target group for the project because they have been neglected in further education for media competence. The changing demographic structure of Europe means this target group is increasing in number. Furthermore, seniors nowadays are more actively involved in society than they used to a few years back. In the project two pilot courses were offered, one face to face mode and the second one in mixed mode (online and face to face). DECTUG plans to offer the course for university teachers (50+) to enable their working as virtual teachers.

BEST PRACTICE - PROMOTING AND IMPLEMENTING LLL IN ONGOING PROJECTS

While the courses are developed the next step is to make them sustainable. New projects MISSION, EMDEL, CURE are practically oriented to this issue.

For example **MISSION** (Multi-country Integrated System Support for Improved ODL Networking, Socrates - Minerva) project aims to strengthen the links between the CEE PHARE ODL Centres - recently established by the support of the PHARE Multi-Country Programme for Distance

Education. At the same time it aims to improve the effectiveness and long-term stability of collaboration between EuroStudy Centres (coordinated by European Association of Distance Teaching Universities - EADTU) and PHARE ODL Centres. As a more generic objective, it focuses on enhancing the awareness of ODL as the most effective, innovative and flexible methodology for supporting the European dimension of Life-Long Learning.

The typical beneficiaries of the MISSION project are expected to be: HRD policy makers and decision makers, ODL providers, course developers, ICT application developers, management staff and academics of universities working in dual/mixed mode education systems, staff developers and advisers, evaluators, distance learners all over Europe.

Establishing a central, multi-lingual (13 languages) WEB portal and electronic network based on ICT (e-newsletter, discussion groups, course catalogue, staff development and mentoring, etc.) is a core activity of the project. In addition to the advanced electronic tools and resources that will be available for a global audience, specific staff development programmes for ODL Centres and strategic plans for the sustainability of ODL networking in Europe will also be major outcomes.

The project **EMDEL** (European Model for Distance Education and Learning) is a 'Valorisation Project' funded by the Leonardo da Vinci Programme. EMDEL intends to valorise the results of other distance learning and e-learning projects carried out earlier within the framework of European Community initiatives. Starting from these results and the 'good practices' tested, the main goal of the EMDEL project is the creation of a European E-learning System through a process of cooperation among partner institutions and the enlargement towards new organizations.

The project's objectives will be achieved through activities and products which are planned for the three-year period 2001-2004, including the production of an on-line Catalogue 'Showcase of Distance Learning Modules' to provide trainers' and managers' of distance learning systems with information about the distance learning modules on offer in the marketplace, requirements for their utilization, and opportunities for the exchange and on-line of the best products whichever server they sit on. To support sharing, a software programme for the assessment of customer satisfaction and quality of the products will be provided.

The project aims to allow the utilisation of distance training products in their original language to a person living in a partner country without any post production. The result will provide services of support locally and on line (in the original language) thanks to the presence of local tutors. Dissemination, will be the through the presentation of the realisation model of a European Teletraining Network demonstrating the concrete possibilities

of construction, starting from an existent distance training system based locally but with trans-national connections.

The main objective of the **CURE** project (Centre for Urban Construction and Rehabilitation: Technology Transfer, Research and Education, 2002-2005) is to promote the aspects related to urban construction and rehabilitation by conducting technology transfer, research and education activities. One of the major objectives of the CURE project is to teach the methods related to sustainable urban construction and rehabilitation.

Among several innovative features planned, the most challenging one is the extensive use of distance education (in English and Polish languages) based on modern information and communication technologies (ICT). DECTUG is responsible for the technical support, online tutors' training and also for online course preparation and delivery. At the first stage the course will be offered in English for Environmental Awareness; TeleCAD - Teleworkers training for CAD systems users; and Ethics online. These courses will be implemented in two work packages offering International PhD and Postgraduate studies.

Finally DECTUG has been involved in teacher training since 2000. Three editions of postgraduate studies have been offered, with communication among students is partly based on the Internet. BSCW (Basic Support for Cooperative Work) system is used to support interactions between student and student or student and teacher, providing a number of benefits; decreasing the sense of isolation (belonging to group) and increasing flexibility (ability to adapt to new conditions), variety (variety of opinions and experiences), communication experience and practice; as well as enabling a variety of pedagogy (collaborative and co-operative exercises) and providing the opportunity for teachers to work in groups while preparing their diploma work. Finally a collection of their work is presented on the Internet. On the basis of previous experiences there is an idea to start a new project in the Consortium of Virtual Technical University. Up till now only one subject (Virtual Classes and Distance Education) was supported by the Internet. A new project will develop a new curricula based on distance mode.

Table 1. Project outcomes

Acronym	Co-funding	Type of materials	Communication	Certificates/ Accreditation	Comments
EEA	PHARE	Online	Bulletin Board, E-mail, Video conference via ISDN	Gdansk University of Technology	Fee is required, only 8 participants
TeleCAD	Leonardo da Vinci	Online CD Printed	Forum, Internal e-mail, Phone, fax, F2F	Autodesk	Fee is required for certification. More than 1000 users
MDEC	Leonardo da Vinci	Online	Forum, Chat, E-mail	N/Y	Not available
AYTEM	Leonardo da Vinci	CD Online	Luvit	N/Y	Not available
LinguaWeb	Leonardo da Vinci	Online	Bulletin Board, E-mail	N/Y	Free access
Prometheus	Socrates Comenius	Online	E-mail	N/Y	Not available for public yet
Meeting of Generations	Socrates Grundtvig	Face to face Online	E-mail, Board, Chat	N/Y	Not available for public yet

SUMMARY

It should be stressed that only a few projects have been successful. What are the reasons of failure then? The answer is complex but we consider lack of learners' needs analysis; lack of copyright agreement; lack of reliable and user friendly LMS platform; no pilot course delivery; no evaluation after piloting; no updated materials to be the major reasons

General conclusions regarding projects, courses and sustainability issues are collected in the Table 1. It should be stressed that only the TeleCAD course is constantly used and updated (Klosowski, Grabowska 2002). Among more than 1000 users, mainly students from Civil Engineering Department, there is a group of 77 lifelong learners awarded Autodesk certificates. Looking at potential lifelong learners (Grabowska 2001 B) the following groups require further consideration in course and project design: handicapped people; people staying at home; people in rural areas; working

people. With our experience in EU projects we expect engineers and teachers to be major ICT enabled lifelong learners.

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