THE EUROPEAN *E*- LEARNING INITIATIVE
- IMPLEMENTED THROUGH AN INTERNATIONAL, NETWORKED UNIVERSITY

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Abstract

The initative taken by the European Commission in 2001 aims at mobilising existing resources in designing tomorrows education. As part of this programme, a group of eleven European universities will test their Model of a European Networked University for e-Learning (MENU), based on experiences and results from previous projects and R&D work.
The MENU partners are defining models for collaboration (partnership agreement), for a joint study plan, the organization and economic strategy, tested and evaluated through a demonstrator. Based on these models, the goal is to establish a sustainable ENU - a European Networked University.

Key words: International WBE, Online Degree Programs, Collaboration

1 Background

The concentration of intellectual resources at separate university campuses is probably no longer a competitive advantage in itself. New technology and global networks give students opportunities to study where and when they want. E-learning indicates a paradigm shift in higher education, where the days of one provider of knowledge and once-in-a-lifetime education are obsolete. The shift forces traditional, higher educational institutions to re-think their methods, pedagogy and organisational systems. New technology and collaborative methods requires new approaches to higher education. And where collaboration, networks and joint efforts are crucial, Internet is the natural backbone for practical solutions. This in turn, invites for collaboration and exchange of knowledge, expertise, material - and study programmes.

Buzz words like *e-learning*, *academic mobility*, *student flexibility* and *life-long learning* represent complex areas of organisational, economic, technical and pedagogical changes. The educational system has gone through several changes during the past millenniums, from the ancient Greek philosophers through Gutenberg and Dewey to modern problem based learning (PBL). The changes have been enforced and accepted gradually as educators and learners have adapted to the new ideas. The new challenge

now is the speed and the multiplicity at which the new strategies are being introduced and spread around the world.

1.1 The European situation

Despite the existence of a European Union, obstacles like language barriers, strong national traditions and regulations and complex routines for exchange of academic credits and grades between institutions pose extra challenges to joint international prospects. Mass education and joint study programs across boarders is still at an early stage.

Direct exchange of courses and course material, acceptance of credits and exams are rather complex in most cases. Since the production of net-based learning material is rather time and resource consuming, much effort can be saved by close collaboration between institutions and staff members with common interests. Some of the earlier projects have shown rather promising results here, proving that it is really possible to collaborate in this field. There is more to gain by collaboration than by competition.

Systematic networking within groups of institutions with common goals has been tested out with clear signs of success, both nationally and across national borders. But it requires both institutional and individual commitment to share and collaborate in order to make this part successful.
Through different projects over the past 6 -8 years there has been a gradual evolvement of goals and results. More details may be found by visiting the web sites.

1.1.1 Projects funded by the European Union (EU)
The DELTA programme (1988-94) funded several larger projects, among them **JITOL** - Just In Time Open Learning (1992-94). 12 partners challenged existing technology and software to test new ideas about net based open learning, NOL. This gave rise to new projects and further development.

MECPOL[1] – Models for European Collaboration and Pedagogy in Open Learning (1995-98) pioneered the ODL strand (Open and Distance Learning) that was funded by the Socrates programme. 8 partner institutions surveyed existing models, as well as designing new models for ODL.
DoODL[2] - Dissemination of Open and Distance Learning (1996-98) was a follow-up of the MECPOL, where focus

was set on dissemination and implementation of the models for ODL.

SHARP[3] - SHArable Representation of Practice (1997-99) focused on the use of video/multimedia in ODL material. A common database was established for sharing of annotations and video resources.

EuroCompetence[4] - A university - workplace model for developing knowledge for European Collaboration (1998 – 2000) is so far the latest EU project that contributes to our experiences. Main objectives here were methods and tools for professional collaboration over Internet.

1.1.2 National projects

Several national ODL projects around Europe are producing valuable contributions to the total development of ODL or e-learning. Relevant examples are

NITOL [5] - Norway-net with IT for Open Learning (1994 – 99) started as a national version of the JITOL project, involving 4 Norwegian institutions. Riding on the waves of ODL and lifelong learning, the project grew rapidly from a limited R&D project to a national provider of NOL courses. In 1999 some 100 different courses attracted more than 5000 student entries. Thus it was decided to split the organisation. R&D activities remain in NITOL, while student- and course activities now are organised in -

NVU[6] - Norwegian Networked University (1999 -), extended from the initial four NITOL institutions to nine Norwegian universities at the moment.

FVU - Finnish Virtual University[7] involves 21 Finnish universities in a joint network, providing higher education to students all over Finland.

2 The e-learning initiative

The European Union has for the past decades taken several initiatives to improve education and the level of competence among it's citizens. The application of new information and communication technology (ICT) has been gaining more focus as the technology develops and spreads in the society. Based on different political manifests, new programmes and funding systems have been initiated.

The e-Learning Initiative taken by the European Commission in Brussels, has led to The eLearning Action Plan[8] and the allocation of funding (7.5 million EUR) for 2001 - 2002. This is an action to boost the change from traditional education to systematic applications of ICT for the provision of flexible learning and competence building - *Designing tomorrow's education,* as the Commission says.

In its resolution of July 2001 the Council of the EU invites the member states to 16 different actions, among these an invitation[9]

- to foster the European dimension of joint development of ICT-mediated and ICT-complimented curri-

cula in higher education, by encouraging common approaches in higher education certification models and quality assurance to provide incentives to establishments, faculties or departments achieving innovative and pedagogically sound work at European level, in this area

The Council also invites the EU Commission

- to continue supporting existing European portals and to encourage the development of other portals to facilitate access to educational content and to promote collaboration and exchange of experiences in the area of e-Learning and pedagogical development, especially with a view to:

- *supporting trans-national virtual meeting places,*
- *stimulate European networking at all levels and in this context establish and provide networks for the benefit of teacher training,*
- *supporting directories of existing quality Internet resources*

On the basis of these documents a the Commission issued the Call for proposals[10] in June 2001, for preparatory and innovative actions. Among the central objectives for projects under this call, the Commission wants proposers

- to provide support and initial funding for sustainable and scalable projects, which establish at the European level new quality networks, contents and services in the field of e-learning

Particular areas are identified, among these

- virtual European universities, based on partnerships and cooperation with other universities - - - - - for European degrees combining courses and materials from different universities; - - -

Following the call for proposals some 12 different projects have obtained funding from the EU; MENU[11] is one of these projects. The time frame is rather short, December 2001 - April 2003.

3 Models for a European networked University for e-learning, the MENU project[11]

Despite Norway not being a member state of EU, Norwegian institutions are accepted as proposers and partners in projects. MENU is coordinated from Norway, by Stord/ Haugesund University College. Most of the 11 partners have long experience from net based learning activities at university level, as well as from national and international collaboration. Some of the partners represent already existing networks of academic institutions, e.g. The Finnish Virtual University[7] (FVU, 21 member institutions) and the Norwegian NettWorkUniversity[6] (NVU, 9 institutions). The intention now is to combine and expand these networks into a European dimension, demonstrating its

functionality through a Model of a European Networked University, MENU.

3.1 Outline of the project

The 4 Norwegian NITOL institutions, all with long experience from net based learning, from inter-institutional collaboration and from international projects, decided to go for additional EU funding of their activities. Partners from previous projects, were contacted, and gave positive responses in the form of letters of intent. Soon the group of 11 partners was established.

From previous projects the partners knew that net-based collaboration and joint ventures between traditional universities are possible at national and at limited international levels. The current project aims at extending these activities to a Pan-European level, establishing it with a true European dimension. Concentration of the content to ICT-related studies implies an implicit contribution to the ICT literacy and exploitation of technology in education and amongst the general public.

The project focuses on joint efforts and collaboration to create a European consortium for higher education, applying experiences and findings from previous work.

3.1.1 Activities
1. Organise a network of institutions, or a 'European Networked University' (ENU), consisting of
   a. Partnership agreement
   b. Operationalise objectives and practices of ENU
   c. Structure for sustainability and a permanent e-learning activity
2. Establish a (general) European Master Degree programme ('ICT and ??') as a demonstrator, showing
   a. Specification of structure and content, with a preliminary study plan
   b. Establish academic and political acceptance and agreements
3. Establish a system for quality assurance (of content, level, methods, services) for e-learning
4. A seminar for dissemination of findings

3.1.2 Anticipated results
1. The model for a sustainable ENU with an array of study programmes, available throughout Europe
2. A common quality assurance system for general acceptance of credits and degrees obtained through ENU
3. An operational study plan for a European Master Degree programme, based on contributions from several countries and institutions, a model showing

   a. Subject content and methods
   b. Learning material and environment
   c. Net based support system
   d. Management of scaleable studies

Publication of experiences, results and guidelines for the establishment of a permanent ENU.

3.1.3 Pedagogical and didactical approaches
This project is not primarily aimed at development of new didactical models, it will rely on existing systems and models, and direct its actions more towards the organisation and development of a dynamic organisation that applies previously obtained results. State of the art methods and systems will be applied, in line with experiences at the partner institutions.

3.2 Objectives and visions

Quite naturally the authors of the proposal had some definite objectives in mind, in reasonable agreement with the principles laid out in the call.

3.2.1 Main objectives
– Operationalising the political principles stated in the e-learning action plan, by establishing a strategic and business plan for an ENU, accepted and integrated into national educational programmes

– Demonstrating the possibility of developing joint study programmes across institutional and national borders

– Establishing a model for management and services for a virtual university. Options for scalability (up/down) for ENU as an independent organisation *or* as a virtual network

3.2.2 Target groups and their benefits
– University teaching staff , leaders and administrative personnel
– National authorities, decision-makers and administrators (Ministries of Education etc.)
– Curriculum developers and administrators
– Learners (students, adults, teachers)

By involving these target groups, the intention is that institutions will be more European, flexible and ICT-minded, making e-learning an important part of university activities. A central obstacle in this process is often the incompatibility of assessment and quality assurance systems between institutions and countries in Europe. Joint efforts towards a common system would be of great value in an international education market. Findings from the project are intended to help decision makers in their process of planning future educational systems, exploiting

the potential of e-learning. Learners will have easier access to a variety of study programmes, with an international acceptance and accreditation.

3.2.3 Added value

National study programmes will be enriched and have added European value through the collaboration, joint marketing and exchange of courses and material. The mutual acceptance of credits and degrees obtained through joint study programmes is an innovative asset of significant value. Bringing universities from traditional organisations (campus/lecture halls) to dual mode institutions, is essential to Pan-European higher education.

3.3 Establishing the project organisation

With a project duration of only 18 months, the activities have to be planned and structured for efficient performance.

There are four main stages in the project
1. Establishing the partnership and agreeing on principles, goals and methods
2. Analysing existing institutional strategies and systems in order to create the necessary documents / plans for the joint model
3. Testing the model by running real courses on the net; quality assurance
4. Finalising the model, based on plans and experiences; dissemination of results

Parallel to these stages there is an evaluation process for the whole project going on, as well as the management of project activities.

3.3.1 Methods

Naturally, ICT is the most central tool during the project period, as well as in the sustainable trade-off from the project. All partners involved have competence, capacity and experience in this kind of work, relying on Internet as the main communication channel between partner meetings. The organisation of 11 partners in a collaborative project offers a relevant test bed for the intended networked university that is expected to be the dynamic outcome.

The technical and pedagogical methods applied in the project build on previous projects and experiences among partners. A further exchange of know-how and competence is the basis for project development. This includes exchange of educational resources (research results, learning material, access to expertise etc.), virtual mobility of students (taking courses across the network, international/European degrees etc.), virtual mobility of staff (providing material and guidance across institutional and

national borders), and the synergy of combining already existing administrative systems.

The organisational method for the project is based particularly on the experiences from the Norwegian NVU and the MECPOL project, where models for collaboration and organisation have been prescribed and tested at a smaller scale (4 – 10 institutions). Partners in these projects strongly believe that this method is scalable and can constitute the core of the MENU organisation. It is also believed that this organisational model makes it possible not only for large institutions to offer e-learning programmes, but also for smaller institutions, through collaboration. A major task in the project is to develop this into sustainable model for larger networks and international student bodies.

A quality assurance system (QAS) is a central task in the project. To survive the international hype of e-learning, universities must make the most out of their tradition on professionalism and research based guarantees for quality and relevance of their courses and study programmes. This task is approached by surveying existing QAS at the partner institutions and other available material on the topic, forming a synergetic product that is taking the new learning environments and methods of assessment into account. This work is yet only at an early stage at most educational institutions, since they are still mainly relying on traditional curricula and exams. There is an urgent need to establish international agreements and principles of acceptance in this matter.

3.4 Technological systems

Through previous national and international projects the policy has been to stick to general, open systems instead of committing the group to proprietary systems. This may cause some delays and extra difficulties in production and distribution. But on the other hand, it will avoid compatibility problems, extra costs and installation procedures for the users

3.5 Material and learning environment

The first attempts to create Open and Distance learning (ODL) or Net based Open Learning (NOL), were clearly coloured by traditions from paper based distance education and by lectures in classrooms. Expressions like *virtual classrooms*, fixed *schedules* with *lessons* and *assignments* are clear reminiscences of classical universities and correspondence schools. Nothing wrong with building on solid traditions, but this might not exploit the full potential of the technology, the possibilities for improving the learning environment. MENU hopes to combine well established principles with innovative and visionary methods.

3.5.1 Courses and learning environments

We will use what already exists at the different institutions, because of the time limit. The learning environment tool should contain 4 main arenas:

1. **Presentation-/lecture area** for text files, web-sites, overheads, video, animation etc.
2. **Working area** with software tools, word processor, group-ware, workbook/portfolio etc.
3. **Knowledge-area** with oracles & help services, a FAQ-base, library services via Internet etc.
4. **Private area** for private files, a database, work-book, personal work-/study plan etc.

On top of this, there has to be a communication environment.

The project group will not take any decision on a common platform that satisfies all these criteria, but sticks to the previously mentioned principle of open and general tools for implementation of learning material and arenas. This will hopefully prevent heated discussions on technology and software, concentrating the efforts on content and methods of learning.

4 Outcomes

The project is still at its very beginning and outcomes can only be predicted on the basis of plans and promised products. The main output of the project is the model for a European Networked University, ENU. It will be made available to interested parties through different methods of dissemination. Means for evaluating the model and its functionality are the 'user trials', i.e. the Demonstrator. The dissemination will also done at an international conference that is planned in March 2003. Feed-back from partners and outside institutions will judge the quality and relevance of the products.

Other outputs are parts of this main product, the ENU model. The demonstrator will prove - or disapprove - that the model really works. Feed-back from students and evaluating observers will indicate the quality of the demonstrator, the functionality of the model, the efficiency and organisation of e-learning activities. Preliminary publication to the outside world will hopefully lead to further feed-back and opportunities to revise and improve the model.

Dissemination material, both as informal publications and as more scientific reports will be available. The quality of this material is guaranteed by the competence and collaboration between staff members at the partner institutions. Many of them have extensive experience in the production of papers and articles. For the lay-out etc. outside consultants will be hired if necessary. Publications and reports will be made available on the Internet, at a particular web site for the project[10], and as links from more general information sites (e.g. ISOC).

Working in surroundings of multimedia, it is only natural that parts of the material will be published through video and graphic recordings. It is the intention to produce video sequences of lectures, demonstrations etc., and to make this available over the Internet. The technology of digital video and 'streaming video' will be tested as part of the demonstrator as well as at the international conference.

4.1 Organisation

The model will outline how a future European Networked University, ENU, can be established. This will include

- a strategic plan of ENU for development and expansion
- a business plan; how funding and economy can be sound enough for a sustainable consortium
- study programmes and study plans, including exchange of modules and courses, mutually acceptable assessment systems, grading systems etc.
- a quality assurance system across institutional and national borders

4.2 The demonstrator

The project group has promised to run part of at least one master degree study programme as a demonstrator of the functionality of the model. Initially 2 alternative master programmes are being tested: *ICT and Learning* and *ICT Engineering*, both hosted by Norwegian institutions. Both of these are in close agreement with the EU Council resolution, where both studies aiming at education and training of teachers (ICT and learning) and study programmes to increase the skills within ICT (ICT Engineering) are central goals. The demonstrators start in September 2002, and preliminary reports will be made out in April - June 2003. They will certainly include national students, but will hopefully also attract an international group of students.

4.3 Collaboration

How can two or more institutions collaborate so that each one of them promote their own competitive ability to recruit new students? Taking it for granted that there is only a fixed number of students to compete for, this may be hard to see. Our experience, however, is that through collaboration and sharing of expertise and exchange of products between partners in order to offer better and more flexible study opportunities, a larger total number of students may be recruited, thus improving the results for all partners involved. The movement towards lifelong learning for all, provides the extra potential by involving adult professionals of many trades. These future 'students' are often restricted by daily work, families, geographic location

and available funding, and will see e-learning as a natural solution to their needs.

Moreover, both young and adult students will gain by the collaborative venture, at least in two ways:
1) Study material and learning environment provided by joint efforts, have a higher quality and usability than if each individual institution, with limited resources, should develop it all alone
2) Access and availability is improved by offering the studies from multiple locations, thus closer to a larger part of the population, e.g. for marketing, local support and physical meetings of regional groups

Thus the principle of collaboration leads to a win-win situation, for both institutions and learners. This is also relevant for on-campus students who are offered the same on-line learning material as a basis or as a supplement to regular lectures and paper based material.

4.3.1   Obstacles to overcome

It seems to be a basic mistrust between institutions that are traditionally competing in the same market. Our past projects indicate that binding contracts and signed documents are necessary as a basis for collaboration, committing both professional staff and administration to accept the terms of joint ventures. Some of the critical points are
− mutual acceptance of student qualifications
− exchange of material and know-how / expertise
− agreements on strategies for programmes involved
− common or mutually accepted evaluation systems
− economic terms for students and staff (fees and compensations systems)
− marketing of studies and registration of students
All these items will be settled and agreed upon in a partner contract for MENU, before conflicts appear and spoil the positive attitude for collaboration.

4.4   From model to a permanent ENU

Revised documents of strategic plan, business plan, study plans and the experiences from the model trials, the demonstrators and its evaluation, will be the basis for a more permanent ENU organisation. The 11 partners will be the core institutions of the consortium, but will also invite others to join. Some of the plans will be disseminated at the dedicated MENU dissemination conference in Valencia, Spain, March 2003.

The organisational model of MENU will be the most important outcome of the project. This model will, however, build on accumulated experiences and previous models that have been tested in limited environments.

If successful, this organisation will promote virtual mobility of students, academic staff and highly skilled experts. This will also prepare the grounds for mutual and international recognition of academic standards, credits and competence. Hopefully it will help overcoming barriers of language, cultural and political differences, and academic pride related to availability and acceptance of higher education. This is in accordance with the EU educational policy, but may also have effects far beyond the Europe.

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