Cooperation Patterns between the International Telematic University UNINETTUNO and the Universities of other Countries of the World

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Background: the challenges to the University in the knowledge society

New technologies allow a direct connection between the university and the user, by means of a simple PC, a tablet or a smart phone: lessons, multimedia products, databases, self-assessment systems, exams organisation and other training materials can be quickly forwarded and this promotes collaborative learning processes inside dynamic virtual environments. In the "virtual" classrooms, it is possible to reproduce teaching-learning activities as it happens in actual classrooms, but it is also possible to significantly increase the amount of information and start up multiple interactions in real time among individuals belonging to different cultural levels, having different traditions and experience and coming from educational environments of different countries of the world.

Physical distances are overcome and the communication global system allows to delocalise the delivery and use of a globalised knowledge. In this context the idea itself of education and training is changing and this requires targeted public policies. The cognitive society creates new educational needs as well as the tools and solutions to meet them.

The challenges that educational institutions, and the University in particular, are called to face are linked to the fact that classrooms or lecture halls are no longer the only places where one can follow study courses: anybody from anywhere, if he has the required technological equipment and the appropriate materials can build his own environment to carry on his own educational and self-learning process.

In order to educate and train citizens, together a new model of social ethics, it is necessary to establish new systems, new public policies and also new organisational models for universities at local, national and international levels. These can integrate presence with distance; if this is not achieved, I believe that we risk a progressive decay of traditional educational structures. We will witness an uncontrolled process that will lead us towards a more and more de-schooled society; it will be up to the agencies separated from the educational institutions and software designers to create for tomorrow's citizens the new competences that society requires.

Therefore the problem is no longer whether education reproduces social inequalities or not, but rather today's question, common to all universities worldwide, is how to adjust to this system and create, in the framework of globalised economy, systems that could develop **integrated teaching and learning processes**, since they use different languages to communicate knowledge. These should also be **open** processes, since they should have no spatio-temporal limits. Educational and training policies should guide this process and this should happen by starting a stable dialogue among different environments, since the entire world is involved in great changes that are still in progress.

Distance University and International Alliances aimed at realising shared networks of knowledge

The amount of information available on the Internet makes learning happen also outside traditional educational and training structures. The process, enhanced by telecommunication technologies, tends to

build a pedagogical society inside the knowledge society. The awareness of this fact highlights the fact that it will be ever more crucial to establish cooperation relations among academic institutions of various countries of the world to be able to produce academic contents to be posted in the virtual spaces of the Internet and to jointly create systems and structures for the new models of distance universities and quality e-learning. In this new setting the distance university can help traditional universities to develop new shared networks of knowledge capable to overcome geographical frontiers.

In principle, everybody recognises that knowledge, know-how and everybody's skills are the sources of all richness. In principle, everybody believes that the development of a country, its reforming and change processes can be put into practice only if there are people capable of realising and managing these reforms, to participate in the change in a constructive way. Otherwise, these facts are reduced to mere abstract rules. Education is also a tool by which a new model of truly globalised society can be realised.

Today, to start up cooperation relations among academic institutions of different countries of the world and to jointly develop Internet-based training contents is of highly important from a strategic, cultural, political and economic perspective. The production of Internet-based educational contents by lecturers coming form the best universities allow to develop a quality e-learning model and promotes the cultural and industrial development of a society based on Knowledge Economy.

A distance university that is born from a multicultural partnership allows to:

- Promote universities' internationalisation processes;
- Design and implement common curricula enabling to experiment and implement what is provided for in the Bologna and Sorbonne Declarations;
- Supply those attending it the skills required to live in a globalised world
- Promote the production of Internet-base multimedia educational contents also in different languages.

These considerations are at the basis of my personal engagement and of that of the group of people who, in these years, have been working with me to realise, jointly with the International Telematic University UNINETTUNO, a Euro-Mediterranean Area for Education and Research resulting from the cooperation among distance universities and traditional universities and educational institutions of various European and Mediterranean countries to produce training contents to be included into the virtual spaces of the Internet and jointly create systems and structures of new models of distance universities and quality e-learning.

The International Telematic University UNINETTUNO and its role in the Mediterranean Area

The International Telematic University UNINETTUNO was established further to the success of the Med Net'U – Mediterranean Network of Universities project, which boasts the participation of 31 partners belonging to 11 Mediterranean countries (Algeria, Egypt, France, Jordan, Greece, Italy, Lebanon, Morocco, Syria, Tunisia and Turkey). All partners worked together and created a true technological network based on receiving and transmitting digital satellite technologies. Today, all partners can produce, broadcast and receive educational contents, via Internet, via satellite and on satellite television. A technological network that is supported by a network of people, of intelligences that can interconnect and share their knowledge ant the jointly developed a virtual area for higher education and for the circulation of knowledge in the Euro-Mediterranean and capable of giving rise to the International Telematic University UNINETTUNO. The development of Med Net'U from project to system, with the birth of the International Telematic University UNINETTUNO, was supported by the Governments of the partner countries and was made effective by the conclusion of academic agreements with several universities of the Arab World. We jointly succeeded in developing the International Telematic University UNINETTUNO and make it rapidly become one great university in which prestigious lecturers of important European and Mediterranean Universities deliver their courses in several languages in various faculties including engineering, philosophy, conservation of cultural heritage, law, economics, psychology and communication sciences. Thanks to the cooperation of the

professors of different universities did we succeed in creating in the Internet (www.uninettunouniversity.net), the first portal of the world where teaching and learning are carried out in 6 languages: Italian, French English, Arabic, Greek and Polish and very soon even in Russian. The students of the International Telematic University UNINETTUNO come from 40 different countries of the world; they, with no more space and time limits, can attend the university and they can choose whether to studying the language they prefer on television and in the Internet. In the Didactic Cyberspace it is possible to access the different learning environments: get digitised videolessons linked in a multimedia and hypertextual way to books, texts, selected bibliographical references, lists of websites and virtual laboratories. In the virtual classroom the professors and tutors of each subject interact with the students and support their learning processes. Through forums and chats intelligences get interconnected and knowledge is exchanged.

Realising common and shared curricula based on the internationalisation model of the International Telematic University UNINETTUNO

In these years the International Telematic Univeresity UNINETTUNO has been designing and realising common curricula that are recognised in Europe and in some countries of the Arab World. In the process of definition of the study programmes UNINETTUNO made reference to the guidelines provided for by the Bologna/Sorbonne process and by ECTS, European Credit Transfer System as it regards the programmes structuring.

In particular, all our degree courses follow the European Qualification Standards. For instance, for the design of the Psychology Study Programme UNINETTUNO took into account the standards of the EuroPsy, European Qualification Standard for Psychologists, as it regards the scientific-disciplinary sectors and training credits to be allocated to each discipline and therefore it is accredited among the EuroPsy certified courses. This process of adjustment to the international standards enable these study courses and titles being recognised at European level.

As it regards, instead, the partner Universities based on a country that did not join the Sorbonne/Bologna process, UNINETTUNO developed a model for the design of common curricula that has been already successfully tested. A concrete example is the one that enabled the conclusion of an agreement aimed at a double title jointly with Helwan University; after a first phase of analysis of the contents of the respective study programmes for the degree course in Computer Engineering both at a general structuring level and at the level of contents treated in the individual course, it appeared that, in spite of the different timing structure, the issues and courses treated in the 3 years of UNINETTUNO degree course corresponded to the first four-year course delivered in Egypt. As a consequence, we designed a common study programme according to which the students get an Italian (and therefore European) study title that is further integrated by including the subjects that are envisaged by their fifth year of study – and that are not comprised in UNINETTUNO three-year study programme – thus enabling them to get an Egyptian five-year study title. This process of analysis, comparison and integration can be extended to any other country and degree courses: the analysis and comparison of the programmes allow for integrating the study programme that it will be possible to complete at local level, thus enabling the student to be awarded a Italian three-year degree and complete their study path and get a four-year or five-year degree in their own country of origin, taking the exams covering the scientific/disciplinary sectors that are not envisaged by UNINETTUNO three-year degree courses. Another model of cooperation between the International Telematic University UNINETTUNO and the Universities of other countries is linked to the possibility of harmonising the three-year study programme adopted by UNINETTUNO to five-year study programmes; in these cases, the study programme proposed to the students will include the UNINETTUNO 60 ECTS/year standard programme adding up courses and contents corresponding to further 20/25 ECTS enabling the student to be awarded a three-year degree allowing him, at the end of these three years, to complete the first four years of the five-

year study path of their country of origin, thus following a path that he will complete adding one final year and the final exam.

The analysis and integration of the study programmes allow for the realisation of study path able to **supply the competences required by the new labour markets**. The great value of this process of integration of the study programmes and creation of competences at global level is that the outcome of this integration meets the actual needs of the society in which we live. On the contrary, if Universities are cut off from the outside world, the answers they give to the needs of the current society will be inadequate. At present, Universities still deliver customised and localised curricula: this means that in each country they teach "their own philosophy", "their own history", contradicting all what is going on in the world now: on one side training institutions providing localised training paths, on the other side people connecting with the whole world in real time and socially and professionally interacting with a globalised setting. The networked world often make people interact with individuals coming from countries having completely different political, religious and cultural settings; not all academic institutions are able to supply tools to facilitate communication, understanding, dialogue and cooperation.

It the universities would start to network and integrate their own training paths, the could start to supply tools able to meet the needs and demands that the knowledge society requires.

The psycho-pedagogic didactic model of the International Telematic University UNINETTUNO

The psycho-pedagogic tool of the International Telematic University UNINETTUNO designed during over twenty years of research work by me and by my team of researchers and assistants and developed by the International Telematic University UNINETTUNO is the Internet-based learning environment www.uninettunouniversity.net, the first portal of the world where teaching and learning are carried out in six languages enabling to concretise the shift from teacher's central role to the student's central role; from knowledge transfer to knowledge creation; from a passive and competitive learning to active and collaborative learning. In the cyberspace it is possible to access to various learning environments: get digitised videolessons linked in multimedia and hypertextual way to books, texts, selected bibliographies, lists of websites, exercises and virtual laboratories.

The process of definition of the programmes to be treated in each individual course and of the training contents to be supplied to the students envisages the establishment of the Scientific Committees including professors of that specific scientific-disciplinary field coming from the various universities of the world involved in the production and delivery of the course.

In the learning environments of the Didactic Cyberspace the students have their disposal a model of knowledge structuring that makes them active protagonists of their own teaching and learning processes.

For each delivered course the student has at his disposal:
- The "Programme of the Course" including the description and objectives of the course, the didactic planning explains how the course will be delivered, scheduling and emphases of specific issues;
- The "Didactic Planning" in which the specificities of distance learning for each single course are described;
- The "Guide to the Exam" in which the criteria of admission to the exam, the exam modes are defined;
- The "Agenda " in which students and professors/tutors fix the dates on which real-time direct interactions take place;
- The "Conceptual Map", a graphical representation in which the course basic macro-issues and lessons included into each macro-issue are illustrated; clicking on each single lesson, the student can see which issues are included and which materials are associated to the whole lesson and to each

single macro-issue that are treated in it and, in addition, have an idea of which will be the issues and times of the interactive online tutoring meetings that will take place during the course delivery.

The training activities takes place in the section of the portal called the Cyberspace; here the students start their own self-learning process watching the videolessons realised by the professors coming from the best universities of Italy and of the world. The videolessons are digitised and indexed in such a way as to allow for a multimedia and hypertextual use. The student can watch the videolesson on linear mode or decide to watch it according to subjects, to pause it to consult other educational materials linked to the issue treated in the videolesson, go back moving the whole lesson duration based on his skill level. The student can access to more-in-depth study contents in real time thanks to the hypermedia bookmarks, digitised by the professors and researchers of UNINETTUNO, that is to: books and articles, lecture notes, essays, bibliographical references, selected lists of websites, exercises, virtual laboratories.

In the "Virtual Laboratory" learning environment the students have at their disposal virtual tools allowing them to put into practice the theoretical knowledge learnt through the study of the training materials described above. In the Virtual Laboratories, the students can use online simulations of virtual tools that work as real laboratories: here the students, through a learning-by-doing process, put in practice the theoretical knowledge they learnt; the professor/tutor supervises and monitors the student's activities, once the work is completed; through the virtual laboratory the professor/tutor automatically assesses the results achieved by the student. Other forms of mid-term assessments can be carried on through exercises.

Each modules includes also some exercises; self-assessment exercises allow the student to autonomously receive a feedback, lesson after lesson, checking his how learning process as it regards the specific issues he studied. Assessment exercises, to be submitted to the professor/tutor through the portal, are assessed by the professors who will provide a feedback and direct comment on which is the learning level reached by the student as it regards, the macro-issues for which he is assessed.

During his learning process the student is not left alone; he is continuously supported by the teacher and by the tutor. On the forums, the professors/tutors propose issues to be discussed that are linked to the single subjects that play an active role in the creation of contents and in formulating new considerations on the issues being analysed.

In addition, the tutors/teachers plan synchronic meetings on a regular basis on UNINETTUNO Virtual Classrooms in which the students can exchange views with their colleagues and with their teachers on chats, on live video streaming on the web or on the virtual classrooms on UNINETTUNO Island of Knowledge on Second Life.

Finally, the student's whole learning process is constantly monitored by professors and tutors through the tracing system of the UNINETTUNO portal.

The tracing system of the UNINETTUNO portal supplies reports and statistical data on the individual study activities of each single student: accesses to the materials of each course, time spent watching the videolessons, time spent by each single student on the materials associated to a lesson; the statistical data window displays the mark the students assigns himself when he submits the exercise, and that one that, after it is corrected, he gets from the tutor; so doing he can receive a feedback as it regards the difference between his own learning progress and the assessment given by the professor/tutor. These data are available for each single student as well as for classes and wider groups of students: so doing tutors and professors have at their disposal average, minimum and maximum data on the performances of hundreds of students for each course; once a common problem is identified, they can work supplying more-in-depth study materials, planning meetings on the virtual classroom or seminars meant to overcome the difficulties met by the students during the self-learning processes and that, thanks to the distance feedback system described above, it was possible to identify. Finally, the professor and tutor complete the automatic tracing report and qualitative assessment

of the exercises providing a further qualitative assessment. The results of these mid-term assessments determine his admission to the exam that is made on the face-to-face mode or by videoconferencing.

The internationalisation of the University

The model of the International Telematic University UNINETTUNO can make educational context of various countries of the world and of the Mediterranean Region, cooperate and create shared knowledge networks that enable to enrich the curricula with new contents. Thanks to the mutual knowledge of their cultural, religious and political specificities, belonging to the history and cultures of the different Countries, it is possible to interconnect intelligences and create, through the cooperation with other universities, a new training model, based on ethical values able to qualify, in terms of moral an social terms, the coherence of the study programmes, that are enriched by the cultural specificities supplied by each university and teacher involved.

Today we work together and operate within a Euro-Mediterranean Common Area to launch a process of harmonisation of the Euro-Mediterranean educational and training systems by sharing psycho-pedagogic models and human and technological resources. Our working group is aware of the fact that this cooperation enables to create a new model of distance university within which one can move without boundaries and where, thanks to the new technologies, beside the physical moving of professors and students, the mobility of ideas is easier and easier.

The experience made with the International Telematic University UNINETTUNO in the Mediterranean Area confirms that it is possible to share study programmes and to create new educational models.
So doing we really succeeded in starting new fruitful alliances that allow providing the new generations with knowledge and tool required to meet the challenges of the labour market of a globalised society and to dialogue with the various cultures of the world.

Conclusions

Developing knowledge helps consider cultural, religious and political differences as a resource for mankind and not as tools for conflicts and wars. In my opinion, the respect for differences is not possible if educational and training systems are still based on study courses that are exclusively related to the contents of the culture of a single country. In our educational institutions, history, philosophy, law, religion, art, literature are often taught by delivering contents which are too stuck to the local context and which do not provide the appropriate tools to enable people to live inside a globalised society.
Television and the Internet can bring knowledge and expertise to the homes of every citizen of the world with no limits of space and time; everybody can attend courses to acquire literacy, to attain new skills, but also to consolidate a system of shared values.
If one wishes to build and transfer knowledge, borders are uncertain, frontiers are places of continuity and not of conflicts.
Democratising the access to knowledge helps reducing ignorance, feeding the minds of all men and women, and to allow everybody to start from the same starting point and thus eradicating the slavery of ignorance.
Today, knowledge networks can generate new wealth, they can offer the teachings of scientists and of the best intellectuals of the world to everybody in an open and democratic way. Distance university allows interaction between teachers and students from different universities and actually gives a prompt answer to demands for internationalisation of the training and educational systems to build the competences required by the new global labour markets.
When the Internet-based courses contents and the modes of delivery are carried out by university teachers at international level, control upon contents' quality is performed by the academic world and users are guaranteed as "consumers of education" since courses suppliers are easily identifiable. If it is right, as I believe, that the quality brand will determine the competitive challenge on education global market, a

distance university based on a network of the best universities of different countries, will certainly win the challenge. Today distance university can meet the requirements of the new knowledge market: show its quality label; guarantee the user; help in transforming the university into an open system, fit for keeping up to date and integrating all knowledge available in the Web and for realising knowledge interchange at global level.

Only if we implement powerful policies aimed at democratising the access to knowledge, will we be able to lay the foundations on which to make skilled men and women act and to jointly create the values of solidarity and respect of differences, thanks to which the world will more easily share those universal values that, in principle, are accepted by everybody: justice and peace.