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**New Technologies for Distance Teaching University:  
A Strategy for Development”**

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## **Background**

The convergence of telecommunications and computer science, the realisation of computer-based networks and the integration of languages, by overcoming space and time constraints, gave rise to the globalisation process and to the development of the knowledge society. We are facing a true revolution that is based on the multiplication of knowledge and its corresponding applications, but also on the knowledge codification, memorisation and knowledge transfer. Thanks to the Internet, in theory, all people can become the beneficiaries, but also the distributors of knowledge, both on individual and on a collective basis. Technological progress enable us to dialogue with the screen, to transfer our needs and wishes to it.

In the Internet, millions of people speak to one another according to multicultural perspectives, they spread their needs, wishes as well as products linked to their own creativity, they buy products, receive information, follow training courses, socialise with groups of different cultures etc. New ways for expressing feelings, love and friendship arise.

The Internet connects in an interactive way, in synchronic and diachronic way, users of different countries of the world and it brings about significant changes as it regards the de-materialisation of the worlds of production and knowledge: a de-materialisation resulting from the shift from a universe of practical experience to a universe of symbolic abstractions. For the first time in world history, in a concrete



way and without letting the wings of imagination fly, mind and body break free from constraints joined in space and time.

We live in an interconnected, globalised world that has a deep impact on our way of being, but also on our political, economic world, on our balances, our certainties that are no longer linked to only one country, one nation. Lately we have witnessed the first revolutions of the world that had as their main diffusion tools: the Internet, television, mobile phones. Social networks such as Facebook and Twitter, together with satellite television networks such as Al-Jazeera, new media enabling to share and produce contents, are the arenas of freedom where the young people of the Arab World, recently expressed their dissent. The power of these tools was unsuspected and, in a short time, they involved millions of people who, all together, succeeded in destroying political systems that, up to that time, never showed their weaknesses before. These are the new arenas of globalised society. This is unprecedented.

Societies are moving along two parallel paths: the one of the old political models that keep on developing national laws and the one of interconnected man who interacts, often alone, with other foreign contexts without possessing the appropriate tools enabling him to become aware of this situation. In my opinion, today public powers should be conscious of the importance of creating contents to be posted in the Internet. The development of hardware was highly welcome and, at present, we can use technologies that easily connect us with the entire world: PCs, mobile phones, smartphones and tablets such as iPads. However, we cannot say that the same financial support is provided for the production of Internet educational and training contents which can offer the cultural tools to move in the world without boundaries, to create a new system of shared values according to which the respect for differences is at the basis of any form of human interaction. This new social background arises several questions on the political and cultural choices that governments, businesses, educational and training systems and every single user has to make.

## **New technologies to teach and learn**

The challenge that educational institutions are called to face are linked to the fact that, up to the present, classrooms or lecture halls are no longer the only places where one can follow study courses; on the contrary, 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. New technologies allow a direct connection between the university and the user, by means of a simple PC, a tablet or a smartphone: 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 cancelled 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. Cognitive society creates new educational needs as well as the tools and solutions to meet them.

### **Changes in school and higher education training processes**

The amount of information available outside the “school and university structures” makes the learning of knowledge and competence happen, to a large extent, also outside traditional educational and training structures. Anybody can learn from those who feed the information networks. The process, enhanced by telecommunication technologies, tends to build a pedagogical society inside the knowledge society and to develop a new market: the market of educational contents.

Facing the challenge of the processes of economy and of market internationalisation, of the continuous process of codification, storage and transfer of knowledge and functions to automatic and computer-based structures, which enlarge and multiply the opportunity of acquiring information and knowledge and establish interactions and exchanges, the traditional educational systems show their limits worldwide.



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. But, the 21<sup>st</sup> Century citizens should not only acquire specific skills, but also critical and creative skills; higher education should supply the tools that make them able to solve complex problems and create models and development systems suited to each individual regional setting, but they also should be related to the international ones; therefore, it is necessary to integrate knowledge to meet international, national and local needs in curricula that transfer new values and new attitudes towards labour and production. They should develop the learning of languages and cultures of different countries, to teach the respect of the cultural differences existing among the peoples, but they should also know the new technologies and their languages.

The 21<sup>st</sup> Century man should be able to merge professional skills and competences in order to be able to experience complexity; he should be able to “learn how to learn” by using the new cognitive technologies in an intelligent way and developing the ability to select, to master, to assimilate information in a quick and effective way.

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 Education: a Strategy for Development**

In this new setting the distance university can help traditional universities to develop new shared networks of knowledge capable to overcome geographical frontiers and poverty.

The swiftness with which technology evolves, the Internet and satellite diffusion will soon enable even the poorest countries of the world to access the Web. In 2016, according to estimates provided by Cisco Systems, there will be 10 billions mobile equipments connected to the Internet for a world population of 7.3 billions of people, based on UN estimates. This means that, on average, each inhabitant of the world will have more than one equipment to connect to the Web. Building schools and universities to take education and training to the poorest countries of the world is important, but not essential. In the present historical era, what is really important is to create quality contents that could contribute to improve the life of each single person. In this background it will be ever more crucial to create new international alliances to build shared networks of knowledge among the various universities of the world and to support the convergence among institutions. Shared knowledge networks should not be homogeneous or uniform. One should not group with others to clone or even to "mc-donaldize" the education and training systems, but to guarantee a new balance between unity and diversity: the unity of the values and tradition that memory leaves us and the diversity of cultures and languages. Nowadays distance university is the tool to make this objective a solid fact.

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 and by which a new model of aid from the rich countries to the poor countries of the world could be developed. Without involving and therefore educating the people who live in different economic, social, political and cultural settings, it will not be possible to foster true forms of development. Everybody has a right to quality education and training, fully respecting his own cultural identity. Cultural



rights are an integral part of fundamental human rights and education is deeply related to the dignity of the person. The situation is that education and training, according to the declarations made by the UN and by UNESCO and according to the Constitutions of several Countries, are considered among the fundamental rights of man, but unfortunately we have to notice that the “communication”, “knowledge” society has not yet found the tools to make these rights respected.

If we analyse the current illiteracy rates in the world and in the Arab Countries in particular, but also in Africa and Latin America, we cannot help but notice that even in the information and communication era this problem has not been solved at all. All over the world, even nowadays, according to UNESCO data supplied in 2009, we have to point out that there are up to 774 millions of illiterate people, one adult out of five.

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.

These considerations are at root of my personal commitment and of that of the group of the people who worked with me in these years, in view of realising, through the International Telematic University UNINETTUNO, a Euro-Mediterranean Area for Education and Research, starting from the cooperation among distance universities, traditional universities and educational institutions of various European and Mediterranean Countries, with the aim of producing educational contents to be posted on the virtual spaces of the Internet and jointly realising systems and structures for new models of distance university 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. The development of Med Net'U from a project into 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 some Arab countries. 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](http://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. Students, with no more space and time limits, can attend the university; from anywhere in the world it is possible to study in the language of one's choice on television and in the Internet. In the Didactic Cyberspace it is possible to access the different learning environments: get digitised videolections 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.

At present, the International Telematic University UNINETTUNO, thanks to its psycho-pedagogic model and to its computer-based learning environment, 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 Internet, new knowledge. 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 International Telematic University UNINETTUNO is carrying out many projects aimed at helping governments and people to foster development in their own countries starting from the skills of the people. Below you can find some significant examples such as:

The EDICT Project aimed at the distance training of young Iraqi entrepreneurs that allowed to realise 3 Technological Poles in the towns of Erbil , Baghdad and Thi-Qar, that are connected to the UNINETTUNO site in Rome via satellite;

The UNINETTUNO/EGYPT Project in cooperation with the Egyptian Government: thanks to some agreements between UNINETTUNO and some Egyptian traditional universities in whose campuses some UNINETTUNO Technological Poles were set up, the Egyptian students have the opportunity of attending the International Telematic University UNINETTUNO through the Internet; they can also spend a training period in Italian companies and get a university title acknowledged in Italy, in Europe and in Egypt.

The project “I Learn Arabic. The Treasure of the Letters” aimed at teaching how to read and write to the illiterate adults of Morocco, by using the language of television, is part of a big programme, involving political and institutional policy-makers of the Kingdom of Morocco and King Mohamed V, that is meant to eradicate illiteracy by 2015, given that, still nowadays, nearly 40% of the population is illiterate.

While I was engaged in working in Morocco on the distance university project, I happened to understand more precisely the actual needs of the Moroccan society and, undoubtedly, I realised that it was essential to find a solution for their big problem caused by illiteracy. I spent some years of study and research in order to identify a method that, thanks to the television, could bring the Arabs to literacy by diffusing basic language courses to everybody’s home and I created the new pedagogic model that, for the first time in the world, enables to teach the Arab language, on television,



on a lay way. The method is organised in a way that puts words into the context of the objects of the daily life of the Moroccan population. Today, every morning, this course is broadcast on the Moroccan national television network and, given that more the 90% of the Moroccan people has a television set, almost all people can follow it. The Moroccan Government analysed its first results which were very encouraging. So doing we really succeed in realising fruitful alliances among different countries, jointly creating educational contents to be posted in the Internet and provide younger generations with tools they need to face the challenges of the labour world, but, above all, to be able to dialogue and interact with the different cultures of the world.

## Conclusions

The true commitment of the richer countries toward the poorer ones should be to support them by promoting their economic development and, at the same time, by making the true immaterial capital of society develop: i.e. knowledge and competences. These are the true strategic policies on which we could jointly realise a development based on solidarity and new alliances.

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.

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 connected to the changes that the global world has produced together with the universities of countries having different political and cultural backgrounds. By working together, the interconnected intelligences of teachers and students of the northern and southern shores of the world, the International Telematic University UNINETTUNO operates thanks to the new systems of social networks created by 2.0, (Wiki, Facebook etc..) and by the new



models of interaction creates new educational contents and knowledge. They develop a network of skills and knowledge, not by imposing one cultural models to others, but by using intercultural and inter-linguistic interaction and cooperation.

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.

These objectives are envisaged by the OCCAM Project “Mediterranean Platform of E-Services” to whose realisation we contributed, more specifically in its part devoted to e-Learning. This project allows to develop new knowledge networks among the best universities in the world: a distance university in which the educational institutions of the North and South of the World can develop contents to be posted in the Internet.

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 and will be the absolute protagonist of the new knowledge markets.



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.