

**The International Telematic University UNINETTUNO
A Model of Cooperative & Work-Integrated Education through
the New Technologies**

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Education in the globalised and interconnected society

In the knowledge society the idea itself of education and training is changing. The challenge to the innovation-development-growth-education virtuous circle highlights the need to prepare people to enter a dynamic and continuously changing model of society and an extremely flexible labor market demanding new professional skills, new profiles and the retraining of traditional professional profiles. Education should reach diversified mass users even in terms of age. It is no longer possible to acquire professional skills valid for one's all lifetime. This involves developing the skills to able to participate in a continuous learning process, often achieved in self-learning contexts aimed at developing field-specific skills as well as higher cognitive skills (aptitudes to reasoning, to problem-solving and action-planning) and social abilities (autonomy, communication and cooperation skills). In this new setting the basic skills that people have to acquire mainly deal with the capacity to manage information, transform it into competencies and implement it to operate in the new technology-enhanced economic setting. These abilities are the skills required to workers as a result of the impact of the new information and communication technologies on the nature of work. They are the competencies of the knowledge society that will ever-increasingly affect production factors.

Knowledge becomes ever more a strategic resource in the life of the single individual as well as in the evolution of a company. The quality of knowledge, transformed into competence, applied from the start to the end of a production process, makes the difference for a product and for its success on the global market. It is necessary to establish new public policies of intervention to be able to supply legal frameworks and suitable resources to meet the need of enhancing learning more then it was in the past and being able to acquire the competences that will make people match professional skills to a social personality capable of skillfully operating within complexity. Educational and training systems have to question themselves on which direction they should follow to make people "learn how to learn". Educational agencies should become laboratories of collective intelligence" (Levy 1996). This is the way that leads to a knowledge society where learning, know-how and the skills of each person are recognized as the source of any further richness. The means that allows doing so is an "intelligent" use of the new information and educational technologies. In this scenario, therefore, what is absolutely undeniable is that:

"The strength of people resides in their ability to learn, that is to master information, assimilate it, transform it into knowledge and use it quickly and effectively" (Henry 1996).

The analysis of this situation highlights the fact that, while trying to meet the demand, training activities are ever more taking place outside traditional institutional structures, under the need to give a prompt answer to specific demands for flexibility of the offer and by the rapidity of transfer of knowledge and competences.

Today, the amount of information available outside school and university structures makes the acquisition of knowledge and competences happen, to a large extent, also outside traditional educational and training structures. The process, enhanced by telecommunication technologies, tends to build a pedagogical society inside the knowledge society. Lately, there is much more awareness of the fact that, as the segmented and rigid organization of industrial production evolved toward new flexible models because of the use of the new technologies, institutions as well should evolve toward open and flexible systems. We see the slow shift from rigid educational structures, schools and universities, structured into classes with subjects and timetables established by external governmental agencies toward flexible structures that can be used both on the face-to-face and on the distance mode.

The educational sector, as a whole, should ever increasingly evolve in terms of products, process and structures: flexibility and adaptability of the offer of products, development of the

autonomy of the student and modification of the teacher's role within the teaching-learning process.

Giving rise to a global network where the most important universities of the world could store and spread their own contents and which the students of the whole planet could enter, consult and keep on consulting all along their lives should be a political aim of all governments worldwide. Enriching the human kind by supplying knowledge and learning is the true resource of the globalised and interconnected world.

In principle, everybody recognizes that knowledge, know-how and e skills are the sources of all richness and, at present, an "intelligent" use of the new information and communication technologies facilitates the access to education. In the so-called "knowledge society", 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 realizing and managing these reforms; otherwise, these facts are reduced to mere abstract rules. As a consequence, education, the acquisition of competences is at basis of any change, of any model of cooperation. Education is also a tool by which citizens participate in a constructive way to change and it also is the tool through which they can realize a new model of society. Therefore, education is called to play a strategic role to face the effects of globalization and technological innovation. Lifelong learning is the tool required to assure appropriate competence and skill levels. However to do so, the educational and labor systems must cooperate. Today, actually, no institution (school or business) can claim to be able to answer the ever-increasingly urgent demands for education and training. In the knowledge society, those who are unable to transform and enrich their knowledge and abilities at the same rate of his working environment, will run the risk of being excluded from production process.

Thanks to the new technologies, democratizing the access to knowledge is truly possible; anybody, if he has the appropriate technologies can attend training courses with no space and time limits. In the "virtual classrooms" it is possible to reproduce teaching-learning activities as it happens in actual classrooms, but it is possible to greatly increase the amount of information and interact with the educational and cultural environments of various countries of the world. The collaborative dimension of learning is a factor that can greatly enhance the acquisition of new knowledge; the possibility to exchange views, learning, suggestions and experiences highlights the students' role who become the active constructors of knowledge. All this can be achieved. Actually, with the International Telematic University UNINETTUNO and thanks to the new technologies, the places for delivering teaching are no longer only universities' lectures halls, but open spaces, accessible from anywhere in world. UNINETTUNO launched cooperation relations among academic institutions and businesses of various countries aimed at jointly producing educational contents to be posted in the virtual spaces of the Internet to jointly create a new model of distance university. This cooperation gave rise to a multicultural partnership facilitating the University's internationalization processes as well as the realization of curricula allowing to create the competences needed to live in a globalised and interconnected labor world and society.

In this framework the activities supporting the national socio-economic situation carried on by the International Telematic University UNINETTUNO and realized through bilateral and joint projects in cooperation with trade unions, with professional association as well as with companies aiming at retraining and upgrading the workers' skills and help them to access global markets.

In the present essay the results achieved by the agreement made by the International Telematic University UNINETTUNO with Telecom Italia, the largest Italian telecommunications company, are illustrated.

The International Telematic University UNINETTUNO and the Teaching and Learning Psycho-pedagogic Model based on the New Technologies

The International Telematic University UNINETTUNO was born from NETTUNO – Network per l’Università Ovunque, a consortium of 43 Italian and foreign universities, through which, since 1992, thousands of students took a distance university degree and from the international-level success of the European Med Net’U (Mediterranean Network of Universities) Project of which Consorzio NETTUNO was the coordinator. The most significant result of the Med Net’U Project was the realization of a technological bi-directional network, based on transmitting and receiving technologies, connecting 11 Production Centers and 31 Technological Poles, set up at the Med Net’U partners’ sites. The technological network was joined to a network of people and intelligences able to connect and mutually link their cultures. Thanks to this network, which is unmatched in the Euro-Mediterranean Area as it regards distance teaching, at present all partners can produce, broadcast and receive educational contents, both on the Internet via satellite and on television, on RAI NETTUNO SAT, that has been airing academic lectures of the engineering courses in Arabic, English, French and Italian since several years.

Strengths

- Internationalization
- Relations with traditional universities
- Relations with companies
- Innovation

Internationalization

UNINETTUNO succeeded in rapidly getting and developing to an international level concluding significant agreements with the governments and with some universities of countries such as Egypt, Morocco, Tunisia, Jordan, as well as agreements with universities of the United States, Ecuador, Europe, Slovenia, Russia, Poland, China and other countries of the world.

Below are listed some examples

- The agreements with some governments of the Arab World allowing the students coming from these countries to be awarded a degree recognized in Italy, in Europe and in their respective countries.
- The EDICT Project funded by the Italian Ministry of Foreign Affairs aimed at skill building and at promoting the development of new enterprises in the three Governorates of Baghdad, Erbil and Thi Qar where three UNINETTUNO Technological Poles, connected through a videoconferencing system to its head office in Rome, were set up.
- The course to teach how to read and write in Arabic on television to the illiterate adult population of Morocco whose title is “I Learn Arabic – The Treasure of the Letters”, funded by the Italian Ministry of Foreign Affairs and by the Under Secretariat for the Fight against Illiteracy of the Kingdom of Morocco.
- UNINETTUNO and young Egyptians, the distance university degree course in Information Technology Engineering at Helwan University in Cairo and integration policies through the organization of training periods for young Egyptian graduates at the sites of Italian companies, based in Cairo and in Italy.

At present, its students come from 42 different countries of the world: Albania, Algeria, Argentina, Belgium, Bulgaria, China, Czech Republic, Brazil, Nigeria, Costa Rica, Egypt, United Arab Emirates, Philippines, France, Germany, Jordan, Great Britain and Northern

Ireland, Greece, Iran, Ireland, Lebanon, Libya, Luxembourg, Mali, Morocco, Nigeria, Netherlands, Pakistan, Palestine, Portugal, Romania, Russian Federation, San Marino, South Korea, Syria, Spain, USA, Sweden, Switzerland, Tunisia, Turkey and Zambia.

This fact emphasizes the value and the importance of starting cooperation relations among academic institutions of the various countries aimed at producing educational contents to be posted on the virtual spaces of the Internet to jointly create systems and structures of the new models of distance university. Uniting the educational contents produced by renowned lecturers of Italian and European universities and of many universities of the Arab World allows to interrelate their ancient knowledge to propose to the world the huge cultural heritage they belong.

Relations with Traditional Universities

The fact that UNINETTUNO was born as a consortium made cooperation with traditional universities easier and allowed UNINETTUNO to rely, since the very beginning, of scientific highly qualified academic staff. All UNINETTUNO staff, those who produce the video lessons as well as those who realized the training contents to be posted on the Didactic Cyberspace of UNINETTUNO portal, and also the lecturers in charge of the courses and, at present, the area professors, the members of the scientific commissions and, at present, the deans and the members of the Academic Senate, are full professors; in particular, the UNINETTUNO Board of Directors includes rectors of traditional universities. These relations allowed UNINETTUNO to deliver high quality educational services and to develop research project with traditional universities.

Relations with Businesses

UNINETTUNO is engaged in supporting the national socio-economic context by developing bilateral agreements and joint projects both with trade unions and with professional associations at national and local level and with businesses aimed at staff training. These initiatives are aimed at enhancing the training level of the workers at the support of competitiveness of the businesses on global markets and where necessary the specialization, retraining and continuous upgrading of the workers skill level.

Innovation

UNINETTUNO innovation in terms of process and system is the outcome of results the of research projects it carried out that allowed to realize:

- A new organizational model of distance university
- New structures, open spaces replacing lecture halls, technological poles, virtual classrooms on the Internet;
- A new teaching and learning model on television and on the Internet;
- A new psycho-pedagogic and didactic model characterizing the training process in the Didactic Cyberspace of the portal www.uninettunouniversity.net, the first portal of the world where teaching and learning take place in 6 languages (Italian, English, French, Arabic, Greek and Polish). Innovation keeps on developing also thanks to research programs carried out at international level as well as at university and faculty level.

The psycho-pedagogic model adopted by the International Telematic University UNINETTUNO is outcome of over 15 years of international research and experimentation of the results obtained in distance education by Consorzio NETTUNO carried on by Prof. Garito and by her team. The research projects involved many international-level experts in several

disciplines (technicians, computer scientists, pedagogues, learning psychologists, experts in various languages). The results represent the theoretical basis upon which were realized the new organizational models of the distance teaching and learning system and of the new psycho-pedagogic and didactic models. The model is giving adequate answers to the qualitative and quantitative educational demands of the information society and to the need for flexibility, diversification and internationalization of the teaching-learning processes; it is acknowledged by the international scientific community, as it results from the various publications and already has significant effects on the theories related to learning processes, teaching methodologies, distance interaction relationship.

The cognitive and connectionist theories are the theoretical basis upon which the whole teaching and learning process is carried on in the “Didactic Cyberspace” area of the Internet portal www.uninettunouniversity.net (usable in four languages: Italian, English, French and Arabic).

The use of new technologies allowed modifying not only the teaching-learning process, but also the physical structures where this process goes on. The classrooms have been replaced by open structures, the Technological Poles, where technologies allow implementing a flexible and self-managed training process, which has modified the roles and functions of the professors and of the students.

Distance Teaching and Learning Models

Thanks this model it is possible to integrate the different media didactic-pedagogical possibilities of the various media available and realize, on this basis, an open and flexible learning environment, that allows to:

- Start, also at distance, new communication relationships between students and professors, promoting the shift from one-way communication (typical of the first distance teaching models) to a two-way real time communication model also available in real time;
- End up the one-way communication of knowledge and start a new line of communication that allows the student to access dynamic knowledge that can be self-enriched by the student and can be made available for other people ;
- Use the PC, thanks to Internet via satellite connections, as the focus of a system where different contributions from different media converge to allow the creation of a truly integrated and “open” multimedia model. The PC allows transmitting directly from the University to the student’s desktop lessons, multimedia products, databases, tutor support, practice work, assessment and self-assessment systems.

The International Telematic University UNINETTUNO proposes a didactics envisaging **synchronic** teaching/learning modes where there is unity of time, but not of space in the teaching and learning process and **diachronic** ones, where the educational and training process is no longer linked to the unity of time and space.

Internet for teaching and learning

The Internet-based didactic platform of the International Telematic University UNINETTUNO allows to realize a new psycho-pedagogic model that is characterized by the shift:

- From teacher’s central role to the student’s central role;
- From knowledge transfer to knowledge creation;
- From integration between practice and theory
- From a passive and competitive learning to active and collaborative learning

This psycho-pedagogic model is characterized by the highest degree of flexibility for the student. By this model the student can build his own learning path in function of his educational needs and of his skill-level. A learning environment developed in such a way does not limit itself to offer rigidly pre-established courses, but it offer dynamic contents that can be enriched by other contents existing on the Web.

Actually in the International Telematic University UNINETTUNO, the student is at the centre of the educational process; however he is guided by the new profile of the professor⇒ telematic tutor who has the task of supplying the tools needed to facilitate the networked learning and communication process in a synchronic and diachronic way.

In the Didactic Cyberspace the students actively participate in the creation of their own learning paths and can implement two interaction models:

- With professor ⇒ telematic tutor
- With the intelligent system.

Learning environments in Didactic Cyberspace

The Didactic Cyberspace reflects the needs for flexibility and adaptability of the learning path that eliminates the isolation of the individual favoring an active involvement in the learning process and in the educational development.

The learning environments represent an open and flexible tool and allow the protagonists of the learning process, students, professors and tutors to:

- Create new bi-directional distance communication relations in real time;
- Realize dynamic contents that can be enriched by other contents, already existing in the web;
- Integrate different types of media;
- Non-linear organization of the information;
- Customize the learning systems and therefore:
 - Adapt the system to the single user's needs;
 - Develop cooperative and collaborative learning among the students' and the professors' learning communities;
 - Possibility of transforming the knowledge into practical abilities and therefore in professional skills.

Therefore, the learning environments on the Didactic Cyberspace allow to:

- Supply a single point of access to the web (portal) through which access to large amount of resources available on academic training;
- Supply exhaustive and updated information on educational contents and events, such as study programs, tutoring, exercises etc;
- Organize and deliver educational contents in a pre-planned, structured and consequential way;
- Use new technologies to make information clearer and more readily accessible;
- Monitor the student's learning through constant checks, whose results can be consulted by the student himself in order to self-evaluate his own learning process;
- Put into contact students, professors and tutors using distance communication tools, both in asynchronous and synchronous modes, in order to make information sharing and learning consolidation easier.

I care myself: I learn, the company is with me

The psycho-pedagogic model applied in the Didactic Cyberspace of the platform of the International Telematic University UNINETTUNO turned out to be very effective for the

working students that can easily customize their learning path as well as for their companies, that, beside benefitting from the implementation on big large-scale programs aimed at vocational re-training, can see that individual workers are highly motivated and can rely on positive the positive effects on production due to the fact that working and training times are separated. The working students spontaneously chose to enroll in our university and those who participate in several company training programs succeed in organizing the time spend in studying and working and in particular, according to the theories of Cleary, Flynn and Thomasson (2006) develop and acquire some strategic and innovative characters such as:

1. Responsible learning – learners take responsibility for their learning.
2. Experiential learning – learners learn from experience.
3. Cooperative learning – learners learn with and through others.
4. Reflective learning – learners reflect on and learn from their experience.

By developing bilateral agreements and joint projects with trade unions as well as with businesses aimed at staff training, today UNINETTUNO has become a strategic partner for governments and private businesses both in Italy and in the Mediterranean Countries. These initiatives aimed at enhancing the training level of employees and at developing professional skills within the companies operating on global markets and, if required, specialization, re-training and continuous upgrading of the employees. Among this kind of agreements there is the one undersigned and launched jointly with Telecom Italian, one of world leaders in the field of telecommunications with approximately 55.000 employees only in Italy. This agreement provides an opportunity for Telecom Italia employees to enroll in UNINETTUNO degree courses, choosing, with no obligations and regardless of their task within the company, the degree course that best suits their personal talents, interests and dreams. It is the company that financially support their study path that will sanction the professional and personal rebirth of the employee. The agreement provides that Telecom Italia pays the fees for the successive years only for the students passing at least 50% of exams included into the annual study programs This system was adopted to incentivize students and make them more responsible for their study process.

So doing the Telecom students join a great international university, recognized in the world for the quality of its study paths and innovative learning processes, an online students' community of over 12,000 students coming from over 40 countries of the world and the possibility to access the courses delivered by the best Italian, European and international lecturers. This project, that is part of the activities of Corporate Social Responsibility of Telecom Italia was given the name of "*I care myself: I learn, the company is with me*" and was implemented to promote the development of the employees' extra-professional knowledge and competences. The Telecom Italy employees who were admitted into this training programs had the opportunity to start their university career avoiding negative effects on their jobs being financially and morally supported by their company. The project gives great importance to the wellbeing and satisfaction level of the people who work in Telecom Italia and wish to continuously enhance their own experiences and capacities and presents a decidedly innovative character, if you take into account the fact that trade unions decided to support it working on its spreading over the whole national networks of the company's employees.

The innovative importance of this agreement lies in the fact that the unions and the company found, for the first time in the history of negotiations in Italy, an agreement that will provide the opportunity for employees to enroll in a degree program and the opportunity to improve their social and cultural status in accordance with their working time and duties, through the

use of new distance education technologies. Guiding the whole program set-up was the awareness that the actual future competition will depend on the competences of the people and that these can be enhanced only voluntarily following to their personal aptitudes. This agreement inspired by the strategy suggested by the European Council of Lisbon in 2000 and, in particular, to the principle of lifelong learning makes of Telecom Italia one of the first companies in Europe to start an initiative of this kind to promote the development of the extra-professional knowledge and competences of their own employees. The question is to create opportunities for personal and professional growth of employees, men and women, to make education not select and separate people, but promote and unites them.

Didactic model applied to the project

All courses comprised in all degrees involve three different teaching categories: video professors who are full professor from Italian and international universities who designed and recorded the video course; teaching professors who are responsible of the course on behalf of UNINETTUNO; tutors are Ph.D. and Researchers both from Italian traditional universities and from UNINETTUNO, and are the real didactic interface between students and the online institution, providing support, motivation, real time tutoring sessions, guiding practical activities. Teaching professors and Tutors evaluate students' activity during course delivery, both through UNINETTUNO portal automated students' activities tracing and reporting system and through qualitative assessment, and decide whether or not students are admitted to final exam for each course. Students are grouped in classes made up by a maximum of 30 students in order to grant and provide them a personalized assistance from tutors and professors.

Learning environments provide students different sets of tools and materials:

- support, orientation and planning tools, such as syllabus, concept maps, didactic planning, exam guide, and an interactive agenda used by tutors and professors to set Virtual classrooms and chat events for their classes, provide students tools and information about courses before starting studying on the didactic materials;
- individual study didactic materials are the core-component of a course; video-lessons recorded by the best Italian and international professors for each subject are digitized, indexed and hyper-medially linked to support material, in order to provide students a complete customizable studying experience. Students can watch the lessons in a linear way, or can stop the teacher and make him repeat the concept again; or can jump to a sub-topic using the index box on the left; or, when a red rectangle inscribes a specific didactic material category, can open the related material in a pop-up windows, pause the lesson and go deep on the specific topic the video professor was talking about; besides the video-lessons, UNINETTUNO model provides for each course slides (used by video-professors during video-lessons recording), text, books, essays, articles, bibliographies, lists of websites, multimedia material related to the video-lessons;
- learning by doing materials, such as exercises and virtual laboratories, designed to make students test through practical activities the theoretical knowledge learned through didactic materials;
- online tutoring tools: chat, forum, web-based live streaming conferences, virtual classrooms, Second Life based virtual conferences systems let students and professors meet in virtual environments and create a set up for collaborative learning activities.

Introductory mentoring sessions were conducted for new Telecom Italy students: UNINETTUNO researchers and experts have planned a total of 12 sessions (two for each of

the six UNINETTUNO faculties) showed to new students the peculiarities and the characteristics of the teaching and organizational models used, and the educational objectives of the degree courses they had chosen to enroll in, in order to provide new students with an immediate and simplified approach to the new online learning experience.

Organizational model applied to the project

UTIU organizational model is designed to give students flexibility and customization in their learning paths.

- Course delivery: each course for each degree is delivered three times a year; each session lasts two months; at the end of each session, a final exam session with two exam days for each course is provided. If in a traditional university missing a course means having to wait one year to enroll that course again, in UNINETTUNO model students can design their study plan according to their personal needs;
- Classes: students are grouped in classes made up by a maximum of 30 students in order to provide them a proper assistance. Classes are created using a geographical criterion: the whole national territory has been divided in 8 macro-areas (North-West, Lombardy, North-East, Centre, Latium and Sardinia, Centre-South, South Sicily) based on the students' residence and classes have been created grouping students in the same area. In several cases students working in the same facility have meet each other in the same virtual class, naturally enhancing the interactions during the learning process.
- Exam admission: in order to be admitted to final exam, UTIU students must prove their course attendance. Attendance is witnessed by three factors:
 1. the student must have seen the video lessons and used the teaching materials provided in the course;
 2. the student must have delivered the required exercises assigned by teacher and tutor;
 3. the student must have participated in collaborative activities in virtual classroom. Teachers and tutors verify students' attendance and admit them or not to final exam. Moreover, the agreement provides that Telecom Italia pays the fees for the successive years only for the students passing at least 50% of exams. This system incentivizes students to attend courses and exams' sessions, making them more responsible of their study process.
- Exam sites: final examinations are conducted in person. To ensure maximum flexibility in logistics, UNINETTUNO inherits and extends the Technological Poles concept from NETTUNO Consortium. Students enrolled in UNINETTUNO are not forced to move to Rome - UNINETTUNO headquarters - for the exams, but they can take the exams at one of UNINETTUNO Technological Poles set up as examination site: UTIU professors and tutors move in various examination sites to enable all students to take exams. In addition to the 15 UNINETTUNO Technological Poles on the Italian territory (not to mention the several others international TP), the agreement with Telecom Italy has provided new examination centers located in geographically strategic points that could serve a large number of new Telecom Italia students enrolled. The list of new examination sites shows the Italian territory coverage:



Fig. 1. Division of the national territory for the creation of the virtual classes and location of the TP

In Fig. 1 the adopted division of the national territory for the creation of the classes and the location of the exam centers are shown. The strategic location of the exam centers, also based on the Italian transport network, ensures minimal logistic problems for the students.

Social networks: at the beginning of the program UNINETTUNO and Telecom Italia HR staff has agreed to realize an institutional blog as communication channel for the students enrolled under this particular program. The blog is hosted by Telecom Italia and it is one of them main interaction channels regarding the organizational aspects of the program. It is also adopted by the students to ask clarifications about the program rules and to enter requests.

Quality assurance

Telecom and UNINETTUNO have constituted a joint committee for quality assurance.

Objectives of the committee, which meets at regular intervals, are:

- regularly analyze the performance of students enrolled;
- plan the actions for motivating less active students;
- analyze organizational problems emerged during courses delivery and find effective solutions.

Achieved results

Considering the relevance in terms of enrolled students, impact in socio-economic terms on the territory and on the internal organization of Telecom Italia, the program was considered by experts, by the media and managers as a success story of cooperation between university and private companies. The program was submitted as A case study for OEII, a project funded by the European Commission which saw the participation of 17 institutional partners

engaged in creating new models of cooperation between universities and companies.

Since February 2011, further to an internal selection, 2562 Telecom employees enrolled in the various faculties of UNINETTUNO. Further 350 employees enrolled in 900 individual courses dealing a range of subjects included into the study programs of the Engineering, Economics, Law, Psychology, Cultural Assets and Communication Sciences Faculties of UNINETTUNO.

By analyzing the quantitative data related to the Faculties chosen by the students included into this program Communication Sciences and Psychologies and also Engineering and Economics are the most popular among the students' preferences as shown in figure 1:

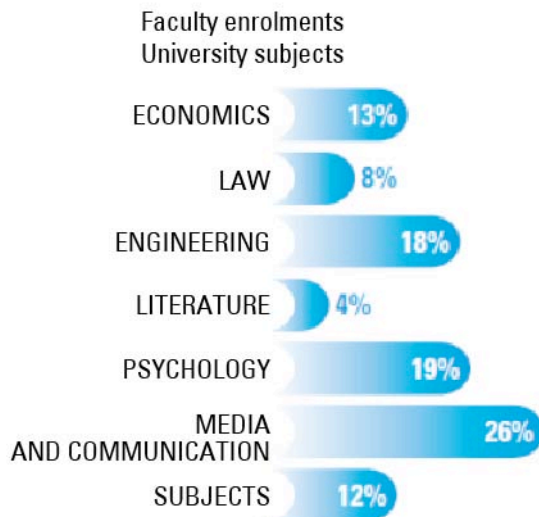


Figure 1 - Distribution by faculty

Most of the enrolled students has not already got a degree (72%); this means that many employees will be able to realize their dream of being awarded a degree and complete the study path they started in the past and interrupted because of work.

Many employees who have already got a degree (28%) joined this program and so doing they have the opportunity of enhancing the cultural background getting a second degree or studying specific subjects more in depth:

Distribution by qualifications



Figure 2 Distribution by study title

Gender data (Fig. 3) show a prevalence of males (62%) on women (38%), whereas their provenience from the different organizations of the Telecom Italia group proves that the project succeeded in involving workers having varied tasks and professional skills that, most probably, never got in touch with each other before:

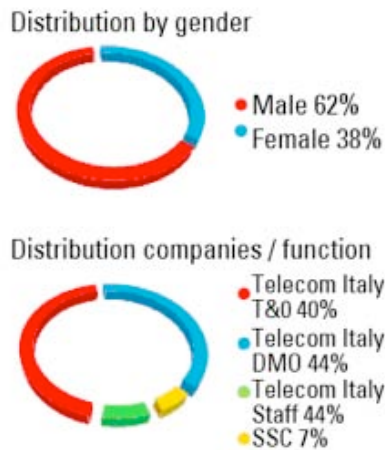


Fig. 3 Distribution by gender and by origin from the Telecom Group organizations

The exams results were assessed after completion of the first year of study. Table 1 and Figure 4 show the average data of the number of exams passed for each faculty corresponding to 4,8 exams for each single student. The total average data show the high ranking of the Telecom students compared to the national average data.

Faculties	Average number of exams passed by Telecom Italia students
Economics	4,5
Law	4,8
Engineering	3,3
Literature	4,2
Psychology	4,9
Media and Communication	5,9
Average	4,8

Table 1 - Average number of exams passed by Telecom Italia students - acad. year 2010/11

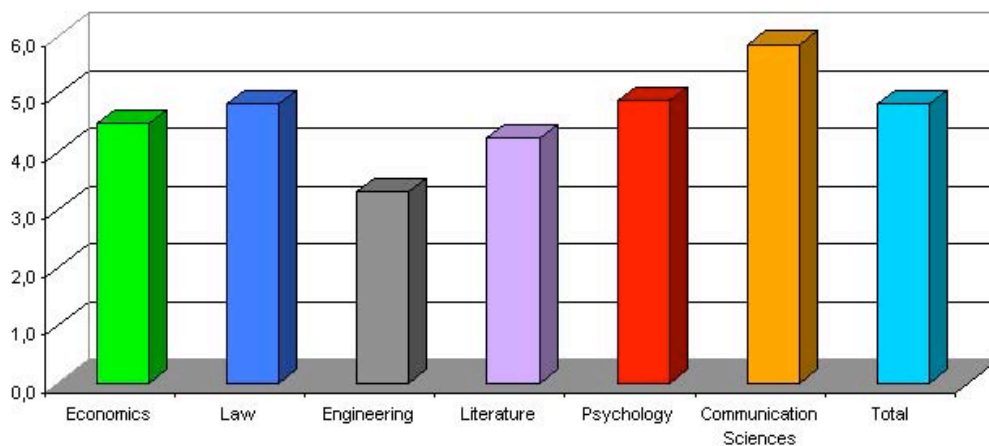


Fig. 4. - Average number of exams passed by Telecom Italia students - acad. year 2010/11

The data of table 2 on grades obtained by the students that, in Italy, are calculated according to a range comprised between 18 (minimum) to 30 (maximum) show that average grades obtained (26/30) is very high.

Faculty	Average grade obtained - acad. year 2010/11
Economics	25,5
Law	25,5
Engineering	24,2
Literature	26,6
Psychology	25,7
Media and Communication	26,9
Average	26,0

Table 2 - Average grade obtained by Telecom Italia students - acad. year 2010/11

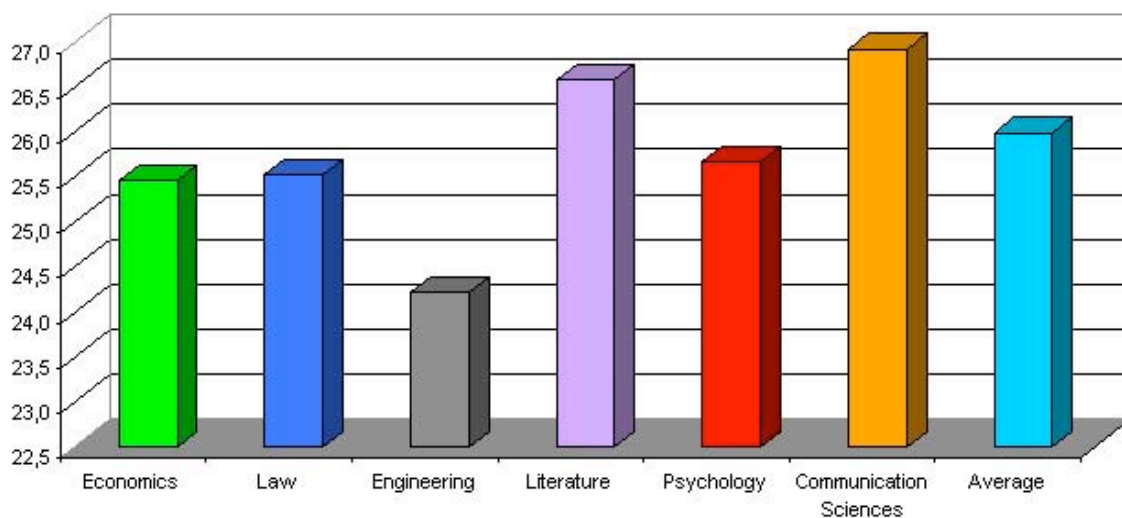


Fig. 4. Average grade obtained by Telecom Italia students - acad. year 2010/11

Remarks

These data demonstrate the effectiveness of the proposed organizational and didactic model. The number of exams passed by students is significant, and the average grade obtained by students is certainly very encouraging. The educational and organizational model that forces the students to use educational materials and to follow online tutoring sessions, allowed the students to be admitted to the exams and to achieve significant and stimulating results. The tutoring activities allowed even elderly students to overcome their initial difficulties and help them to plan the time devoted to work and to study and achieve results that motivated them and made them more self-confident.

At about one year from the launch of the "I care myself: I learn, the company is with me" Program and from a qualitative analysis of the results achieved we can say that, beside the success of the single students that can be measure based on their learning performances, the initiative succeeded in overcoming some old-fashioned clichés such as "company status". Thanks to the new technologies, even in the company microcosm, the idea of democracy and sharing allows to overcome the pyramidal organization of human resources and offer to the company and to its employees new opportunities for development. The working students

included into the program come from all regions of Italy and, from the very beginning, they started a collaborative training experience that allowed to revive their sense of belonging to a group and develop thematic communities on study subjects by a regular use of the tools made available on the learning platform and some of these students gave rise to true spontaneous and fully independent community. Actually, the motivation arisen by their coming back to study through innovative modes stimulated the employees to achieve their own objectives starting a positive competition among colleagues giving them new motivations and an renewed feeling of belonging to a group. In the company blog devoted to the project, on Facebook and Twitter, now working students exchange views, notes and information; this new community, born from the wish to enhance one's own cultural background is re-creating a sense of company identity by improving individual situations. So doing, a technician, working at a telephone switchboard and living in the south of Italy, has finally had the opportunity to get his first degree in computer engineering and finds himself giving advice to a manager working at the head office and sharing with him his notes and preparing together for their next exam.

The case of the program launched with proved that a new highly-sustainable organization approach capable of changing and renewing the relationships between university and company in the light of an appropriate and scientific utilization of the new technologies applied to teaching and learning.

Key aspects of the knowledge transfer mechanism:

- More skilled e qualified people work in the company;
- More motivated people;
- Increased self-esteem and social-status improved
- Sense of belonging to the company
- Other employees may be willing to get additional training
- Employees can advance in career;
- Student-professor interactions can start new scientific cooperation between the University and company branches.

Key success factors can be identified as follows:

- Quality of didactics and research
- Flexibility of study programs
- Students-professor relationship
- Richness of content
- Capability to reach a wider audience
- Convergence of interests in University and Company

Conclusions

Nothing else could better conclude this essay as the opinions of some students who joined the program “I Learn. The Company is with you”.

From Sicily, Manlio Di Giorgio notes:

“I thank the company for caring about its own resources. The development of people is an essential asset. Now it is up to us to firmly and powerfully prove our wish to grow.”

Daniela Giulietti, instead, graduating in Economics wonders:

“Here I am. I begin studying at the Pc of my daughter who had to move to another room.

From time to time my two sons comes to see me and finds it odd to see me busy reading books. My husband remarks: If the three of them get a degree I will be forced to take a mortgage to organize a party!"

"My three undergraduate sons are worried that I could graduate before them. They have understood that they have to work harder" – tells Franco Avallone, future computer engineering from Frosinone – "Their exams went slowly, however, after they learnt about this new initiative, they got up steam. They kept on studying many hours a day declaring their willingness to help me, if I needed it ...

Given that exams never end, let's find the energy, emotion and humility for realizing that we still have a lot to learn. Let's proudly challenge ourselves and take the exams beside the young people ...

Often work engagements make you feel tired, however, feeling that your brain gets enriched by new contents and new horizons ... is priceless. Try it if you don't believe it!"

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