

Guglielmo Marconi Open University. A New Approach To Higher Education

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1. Foreword

The terms open university, on-line university, telematic university all refer to new models of university teaching and learning based on new technologies (the internet, the world wide web, and personal computers) and new theories of learning (e-learning, asynchronous learning, web-based learning, blended, hybrid and mixed learning).

Whichever the model, all models are proving that the traditional approach to university education (*face-to-face*) can be effectively substituted by *distance education*, and, which will, have non-negligible economical, social and political consequences.

Indeed, distance education is already proving to be a remedy to the economic and social difficulties experienced affecting traditional universities. Indeed:

1. Distance education provides a solution to the growing financial problems the traditional universities face to subsist (building and infrastructure costs, maintenance costs and employment costs etc).
2. Distance education enlarges significantly the number of people who can take advantage of higher education at a low cost (avoiding travel and accommodation expenses, have lessons at home given by experienced and well-known professors, let study co-exist with work commitments etc).

On the other hand, distance education is also rising political fears and concerns, since:

1. Traditional universities begin to fear the loss of students, and the loss of government funds owing to the growing number of students favoring distance universities owing to their willing to access higher education from a distance and at lower costs.
2. Political organizations begin to lose their traditional means of creating political awareness in students through activities they may organize on the campus.

The consequences of these fears and concerns have been the spread of around the world of prejudicial comments and negative evaluations of distance learning, focusing on its alleged defects and limitations; in particular on the (presumed) low quality of education. Such evaluations are to be seen as opportunistic and can be easily contradicted. Indeed, the quality of university education mainly depends on the quality of teachers, courses and facilities, and if more funds sign up for on-line courses universities can hire better experienced and more well-known professors, offer better courses and improve student facilities.

Despite prejudices, and despite the fact that governments do not fund open universities in the same way they fund traditional ones, the open universities are organizing themselves in order to offer quality education and to remain economically competitive.

But, what should an open university do to be successful, defend quality and satisfy students? It should:

- Invest in study models and technologies.
- Which technologies?

- Innovate courses and replace traditional ones.
- Invest in experienced and highly regarded academic staff.
- Be stringent in student examinations.
- Be economically competitive
- Be representative in research.
- Be internationally connected.

This paper shows how the Guglielmo Marconi University is dealing with such objectives.

2. The University

The “Università degli Studi “Guglielmo Marconi” (USGM) is a public university recognized by the Italian government and approved, by the Ministry Decree of March 1th 2004, as the first Italian Open University. The Marconi University academic courses are legally recognized and accredited in compliance with the Act no. 127 of May 15th 1997 and with the Decree no. 509 of November 3rd 1999 of the Ministry of University and Research. It is also registered at the Ministry’s National Research Registry Office (Anagrafe Nazionale delle Ricerche), and collaborates in its activities with university research centres and laboratories.

2.1. Headquarters in Rome

The University’s main headquarters in Rome include three locations:

1. Rome – Via Plinio, 44

Five-story building, home to the administration, enrollment, helpdesk, and secretariat offices (for graduate and postgraduate courses), the university’s Language Center and the Life Science’s study center. The building also houses the library, the main lecture theatre (Aula Magna), and a number of meeting and conference rooms.

2. Rome – Via Paolo Emilio, 29

Four-story building, home to the secretariat offices, to many classrooms for training activities, the tutors’ offices, the teachers’ rooms and the school for Legal Professions. The building also offers two conference rooms, two meeting rooms and the technical-scientific laboratory.

3. Rome – Via Vittoria Colonna, 11

Three-story building, home to the Rector’s office, the administration head office and department, the general secretariat, the faculty deans’ offices, the events and communication office, the research and development office and the project and international relations office. The building also houses four meeting rooms and the historical “Vittoria Colonna” conference room, venue of the most important university events.

2.2. The National branches

Further buildings and offices are spread across the country in the main cities of Milan, Genova (Casarza Ligure), Trento, Florence, Ferrara (Cento), Naples, Salerno (Vallo della Lucania), Avellino, Trani, Cosenza (Corigliano Calabro), Palermo, Gela, Cagliari (Selargius), where students are offered assistance and tutorial support and exams are held.

3. Study Method And Technologies

The Marconi academic expertise builds on a rich European educational tradition and provides the added value of research and innovation in educational technologies. The Marconi educational model offers both online and hybrid formats, combining face-to-face and interactive activities, promoting a method for enhancing student-faculty interaction and a more efficient use of institutional resources. The teaching technologies are based on the Marconi Virtual Campus, the Marconi WebTV, the Virtual Laboratories and the Interdisciplinary Multimedia Paths.

3.1. The Virtual C@mpus

The latest findings in instructional design and digital technologies have led to the creation of the Integrated Multimodal System (SIM), the platform for the Marconi Virtual C@mpus which benefits from the integration of various tools (Personal computer, Mobile mp3 players, eBook, Television), as illustrated below:



The platform allows student to access audio and video lessons, as well as educational materials and educational activities, by choosing different supports:

- Personal Computer (by use of the E-Learning Platform)
- Mobile/mp3 Players (iPod, PDA , Pocket PC, Smartphone)
- Television (Web TV Marconi Channel, DVD)
- E-Book (Book readers).

3.2. The Web TV Channel

It's the University TV channel created to offer students an additional educational tool to support their educational activities. The Marconi Channel covers eight thematic areas, relating to the University's organization and the main Faculties: University, Art & Culture, Law & Economics, Sciences & Technologies, Society & Institutions, World News, Events, Live Broadcasts.

3.3. The Virtual Labs

It provides students the opportunity to customize their own study experience by featuring tools for, for example, macro-economic simulation, live lessons in agricultural mechanization, equipment for the thermodynamics laboratory and for the computer engineering laboratory.

3.4. The Interdisciplinary Multimedia Paths

It features the *Art laboratory* where students may find links to various elements of the lives and the cultural heritage that have influenced various artists.

4. Student Services

A wide range of services are offered to support students in their learning experience at USGM:

- Academic Advising: Students receive, for each subject, personalized assistance from an academic advisor, who supports them during the whole of their study to the final exam.
- Online Technical Help Desk: available 24 hours a day.
- Advisory service: by analyzing the student's profile, the advisory team helps prospective students select the most suitable courses.
- Student Newsletter: a newsletter, including the university's latest news, is sent on a monthly basis.

- Register's Office
- Language Center
- Placement and Stage Office
- Student Support Center: motivates students during their study and supports them in the achievement of their final objectives.

5. Educational Offer

The Marconi academic programs have been designed to prepare students for today's most demanding careers, helping them acquire both theoretical knowledge and critical thinking skills, and to be able apply them in real-life situations.

The University is devoted to the continuous improvement of programs through systematic assessment of results while quality student-centered services and a very flexible format make the USGM courses accessible on a schedule that fits the student's extra commitments.

Small classes and the one-to-one counseling from the Faculty and Academic advising teams provide students with personalized support for the achievement of their personal and professional goals.

Marconi's offer includes more than 50 programs at the undergraduate and postgraduate level that can be attended both online and face-to-face, in addition to many other cross-disciplinary and summer courses in the field of Arts, Literature, Economics, Political Science, Fashion and Design.

Owing to its commitment to the continuous improvement of its programs and the defense of academic standards, USGM attracts **experienced and well-known professors**, internationally known for their research and teaching in traditional universities but who are also interested in experimenting with the new Marconi approach to higher education.

The USGM **annual fees** are also among the lowest ones found in Italian open universities and remain at the same level of the fees paid to the traditional state universities.

5.1. Graduate and Postgraduate Education

The education Marconi University offers consists of a number of 1st and 2nd level degrees at graduate level, and a number of 1st and 2nd level masters at post-graduate level, as below:

- Graduate Education
 - 1st Level Degrees (3 years) – 13 in total
 - 2nd Level Degrees (+2 years) – 16 in total
- Postgraduate Education
 - 1st Level Masters (after the 1st level degree) 9 in total
 - 2nd Level Masters (after the 2nd level degree) 6 in total

5.1.1. Graduate education

Graduate education is offered through six schools, ranging from Law, to Economics, to Training sciences, to Applied sciences and technology, to Political science and to Arts, with 1st and 2nd level degrees and, where required, special five-year degrees, as follows:

School of Law

1st level degree: *Legal Sciences*

2nd level degree: *Public Administration Science*

Special 5 years degree: *Law*

School of Economics

1st level degree: *Economic Sciences*

2nd level degree: *Economic Sciences*

School of Training Sciences

- 1st level degrees: *Educational and Training Sciences*
Psychology Sciences and Techniques
- 2nd level degrees: *Pedagogy*
Psychology

School of Applied Sciences and Technologies

- 1st level degrees: *Civil Engineering*
Industrial Engineering
Computer Engineering
Geological, Cartographical, Estimative and Building Sciences
Agricultural Sciences and Technologies
- 2nd level degrees: *Civil Engineering*
Computer Engineering
Energy Engineering and Nuclear Engineering
Industrial Engineering
Urban and Environmental Engineering
Agricultural Sciences and Technologies

School of Political Science

- 1st level degrees: *Political Science and International Relations*
Social Service Science
- 2nd level degrees: *Management of Politics and Social Services*
Political Science

School of Arts

- 1st level degree: *Modern Languages and Culture*
Film and Television Production
- 2nd level degrees: *Philology and Modern Literature*
Philology and Ancient Literature
Languages for International Communication

5.1.2 . Postgraduate education

The postgraduate education is offered through 1st level and 2nd level Masters, ranging from business, to marketing and trade, to design and fashion, to healthcare and family, to human resources sciences, to crime sciences, to business and public administration, to energy resources, as follows:

- 1st Level Masters (offered after 1st level degree)
- 2nd Level Masters (offered after 2nd level degree)

1st Level Masters

- Business and Administration (MBA)
- Global Marketing & International Trade Relations
- Marketing Management
- Fashion Management and Design
- Interior Design
- Coordination of Healthcare Professions
- Healthcare Professions Management
- Family Mediation

- Human Resources and Organization

2nd Level Masters

- Crime Sciences
- Energy Production from Fossil, Renewable and Nuclear Sources
- Executive MBA
- Education Leadership and Management
- Public Administration Science

The Master in Business and Administration is specifically designed for high-achieving individuals who want to take the next major step along their career path. By covering key disciplines such as finance, management, economics, marketing, operations and in depth strategy, students gain the skills and knowledge needed to manage across departments, markets and entire organizations.

The Master in Interior Design is meant for individuals interested in understanding contemporary interior design, taking into account several subjects like art, history of design, colorimetry and material technology in a multi-disciplinary perspective.

The Masters aims to train professionals so they are able to enter the labor market with competence and responsibility, sensitive to changing modern needs and capable of controlling the entire planning process. Strategic planning and management skills together with the opportunity to experiment in creative and unconventional forms and solutions give the students the instruments to balance the interplay between desire, images and essential practical needs.

The Master in Fashion Management and Design was introduced by the Marconi University to capitalize on the value of the Italian styling tradition, and to improve professional training in this ever-evolving sector. The course program is a hybrid model including both online and face to face lectures, and offers a practical experience of Italian haute couture tradition. The Master is the result of a partnership with Santangelo Collezioni, a renowned Italian brand which is currently making a name for itself in Italian and international fashion.

5.2. Student response to course innovation and high academic standards

Besides the choice of the already mentioned **quality professors** and **competitiveness fees**, the USGM educational policy is centered on both the quality and the innovation of courses: in other words the rejuvenation of curricula that have remained unchanged for years in the traditional universities. The example Computer Engineering will be provided.

Besides innovation, USGM also points to its rigorous courses and student examinations. Despite the demanding standards, student enrollment has been growing since the university's foundation, and USGM remains today the leading open universities in Italy when it comes to student enrollment.

In 2011 there were about 12.000 graduate students (10,500 at 1st Level and 1,500 at 2nd Level) and about 3,000 postgraduates (1st and 2nd level Masters).

The total of graduate and postgraduates students enrollment in 2011 came to about 15,000 students, distributed as follows:

- School of Law = 3,700
- School of Economics = 2,700
- School of Training Sciences = 1,700
- School of Applied Science and Technology = 5,400
- School of Political Science = 1,000
- School of Arts = 500

By including the vocational curricula, the total number of students enrolled reaches comes

to about 22,000. In 2005 (the foundation) that number was of about 500 and so, despite the severity of studies, the university has seen a **growth ratio** of about 3,600 students per year.

The Computer Engineering School, one of the most recently founded at USGM, provides a good example of course innovation and growth ratios despite the tough academic standards. In the three years following its foundation (the year 2008) the School enrolled more than two-times the average number of students at similar schools in traditional universities, as below:

Computer Engineering School

Number of USGM students enrolled in 1st Level Degree = 290
(2.2 times the average 1st Level number in traditional universities)

Number of USGM students enrolled in 2nd Level Degree = 130
(2.6 times the average 2nd Level number in traditional universities).

Reasons for the USGM Computer Engineering popularity can be seen in:

1. Curricula innovation:
 - *new* 1st level courses
 - *new* 2nd level coursesin place of outdated traditional ones.
2. Severity of student evaluation:
 - use of *Virtual Labs* in student preparation (programming, database ,
 - software engineering laboratories etc)
 - use of *In-progress tests* before exams.

Example new courses in the 1st level Computer Engineering curricula:

- “Web Systems and Technologies”
- “Networks and the Internet”
- “Energy distribution and management”
- “Advanced power-train systems”

Example new courses in the 2nd level Computer Engineering curricula:

- “System Quality and Performance ”
- “Simulation Methods and Languages”
- “Software Quality Engineering ”
- “Embedded Software Engineering”
- “Web Intelligent Systems”
- “Networks and Wireless Systems”

Finally, to explain the popularity Computer Engineering attractiveness at USGM it is important not to neglect the fact that USGM is the *only* Italian open university offering today the *2nd level* degree in Computer Engineering.

6. Research And Departments

Research is conducted at USGM by the Departments, each with administrative autonomy and coordinated by its Director and Council. The body the USGM of researchers and professors is divided into eight Departments.

1. DEPARTMENT OF ENERGY AND ENVIRONMENT operates in the fields of:
 - Energy conversion from primary sources directly to end-use, with particular reference to thermal energy heating for civil and industrial use and energy production, storage and distribution systems.
 - Economic, social and environmental effects due to increased pollution.
 - Modeling and theoretical and applied analysis of energy systems.
 - Energy, environment and new technologies supporting competitiveness and sustainable development policies.
 - Interdisciplinary researches in the field of energy and environment.
2. DEPARTMENT OF MECHANICS AND ENERGETICS fosters and coordinates research activities within sectors of mechanics and energy, thermo-fluid dynamics, thermo-chemistry, electro-chemistry, electro-engineering, transportation, energy carriers, traditional and innovative energy systems for stationary and mobile uses, environmental impact of energy systems, energy sustainability as well as sustainable sciences.
3. DEPARTMENT OF MECHANICS, INSTALLATIONS AND INFRASTRUCTURE carries out scientific activity integrating basic and applied research focused on:
 - Innovative techniques to analyze complex mechanical systems.
 - Practices suitable for functional design and reliability evaluation systems.
 - Theoretical and experimental models and test procedures.
 - Innovative technological and industrial installations.
 - Innovative environmentally friendly practices for evaluating and planning viable and rolling stock infrastructures.
 - Intermodal and logistical infrastructures.
4. DEPARTMENT OF PUBLIC POLICIES AND ADMINISTRATION SCIENCES fosters and coordinates interdisciplinary research activities concerning local, national and European public administration, with particular attention to the judicial, political, economic, socio-logical and historical aspects.
5. DEPARTMENT OF ECONOMIC AND BUSINESS SCIENCES promotes and manages research activities in the sectors of economics, business, finance, law, mathematics and statistics.
6. DEPARTMENT OF BUSINESS STRATEGIES AND TECHNOLOGICAL INNOVATION develops research in the field strategies to improve business and technology innovation. It focuses research activities on experimental projects addressed to the scientific community, the public and private research bodies and companies. The Department supports educational, scientific and research activities, identifies interdisciplinary research themes at both national and international level through the sharing of knowledge and know-how with other universities and companies; designs and develops training programs for public and private bodies, national institutions and territorial entities.
7. DEPARTMENT OF PHILOSOPHY, ARTS AND PHILOLOGICAL STUDIES develops research in the field of Arts, Philosophy and Philology, through several dedicated research paths:
 - Theoretical–epistemological dimension of philosophy research in the transition from XIX to XX century.
 - Philological-literary analysis of phenomena related to the evolution of ancient and modern languages.
 - Diachronic study of the different human communication methods, paying particular attention to the historical linguistic and XX century linguistic time.
 - The different literary communication methods from classical times to present day.
 - The study of the major languages from different historical times and artistic

production from ancient civilizations to present day.

8. DEPARTMENT OF NUCLEAR & SUBNUCLEAR PHYSICS, AND RADIATION promotes basic research in physics and high energy radiation. The research's main concern is the theoretical and experimental study of fundamental interactions, carried out in collaboration with international laboratories such as FERMILAB (Batavia-Chicago), the National Laboratory of Frascati, the INFN (Naples) and the CERN (Geneva). The Department members contribute to the research development through experimental data analysis and advancement of detection equipment for Nuclear, Sub-nuclear and radiation interaction. The department members work also in cooperation with the ENEA Laboratories.

7. Centers And Institutes

- MARCONI STUDIOS – USGM Experimental Center in Film, Television and Digital Media
The Experimental Center is an autonomous branch of the university which manages and coordinates research activities, training, refresher courses, production and the provision of services linked to audiovisual and advertising projects. The Center develops its projects through the contribution of all university resources, and through specific agreements established with public and private bodies, enterprises and national and international professionals.

The Experimental Center, in collaboration with good experts in the field, offers courses addressed to graduates or people who have a secondary-school diploma for technical training and refresher courses.

Training activities are delivered in a hybrid format and are completed in stages. They include both face-to-face and distance learning sessions in order to meet the different learners' needs.

- UNIVERSITY LANGUAGE CENTER

The USGM Language Center ensures the acquisition of the different language skills required by the Common European Framework of Reference (CEFR).

The vocational courses, delivered in diverse ways, train students to obtain European language certificates, such as:

- Basic A1 and A2, the so-called breakthrough and way-stage levels.
- Intermediate B1 and B2, the so-called threshold and vantage levels.
- Advanced C1 and C2, the so-called effective operational proficiency and mastery levels.

After successfully completing each language level, the student receives a certificate of attendance. The courses currently available are:

- Italian for foreigners
- Spanish
- Russian
- English
- German
- French

The Center offers:

- Self-learning audio-video laboratory
- Self-learning language laboratory
- Self-learning computer laboratory
- Seminars rooms
- Projection room
- Booths for simultaneous interpretation
- Fully-equipped classrooms
- Recording studio

Students have the opportunity to record their formal and informal linguistic competences in the European Language Portfolio, recognized by the European Commission which certifies the acquired competences and acknowledges them at a European level.

8. International Area

The International Relations Area of USGM is active in promoting and implementing the University relations with European and international institutions, in order to establish cultural and academic exchanges in the field of education and research, as well as to implement the physical and virtual mobility of students, teachers and academics, thanks to the use of digital technologies. A broad network of contacts has been established with many foreign universities and foreign higher education institutions, enabling the exchange of content and research findings on distance education and its applications.

8.1. Inter-University Cooperation Agreements

At present, the following Interuniversity Cooperation Agreements have been established:

- Université de Tizi-Ouzou (Algeria)
- UTEPSA Universidad Tecnologica Privada de Santa Cruz (Bolivia)
- Consultoria Empresarial Brasil Italia (Brazil)
- ULBU - Université Lumière de Bujumbura (Burundi)
- Shanghai TV University (China)
- North Kazakhstan State University named after M. Kozybaev (Kazakhstan)
- University of Information Technology and Management in Rzeszow (Poland)
- Universidad Nacional Agraria La Molina (Perù)
- N.I. Lobacevskij State University of Nizhny Novgorod (Russia)
- AKBL Scientific Research Center of Nizhny Novgorod (Russia)
- Plekhanov Russian Academy of Economics (Russia)
- Siberian Federal University (Russia)
- UNED (Spain)
- Studiopla Danismanlik Egitim ve Tic.Ltd. Sti (Turkey)
- Lviv University of Business/Entrepreneurship and Law (Ukraine)
- Kaleidoscope Learning (USA)
- Saint Leo University (USA)
- Argosy University (USA)
- Bielorussian State University (Russia)
- Universidad EAFIT (Colombia)
- Fermi National Accelerator Laboratory (Fermilab) Batavia IL USA (USA)
- UDIMA – Universidad a Distancia de Madrid (Spain)
- Eurocentre (Greece)
- Italian American Museum (USA)

8.2. The GUIDE Association

The international Relations Area carries out functions of the “Operating Office” on behalf of The GUIDE Association – Global Universities in Distance Education – which supports, in a flexible manner, the open learning sector, promoting cooperation and research while staying in line with the cultural specificity of members.

The Association, founded by the USGM in 2005 and officially launched during the international conference “GUIDE 2006 - Towards the development of Common Platform for Global Cooperation”, has reached a global dimension with more than 120 member universities all over the world. The mission of GUIDE is to offer strategic support to its members for the imple-

mentation of international projects and to facilitate dialogue and interaction among public and private bodies and other institutional actors involved in distance education.

GUIDE main activities:

- Support member institutions for the establishment of partnerships useful to draw up proposals and projects financed by the European Commission or other international organizations and to implement sustainable education plans in developing countries
- Draft and release of Newsletter focused on the e-learning sector
- International Conferences and Regional Workshops.
- Publication of *FormaMente*, the official journal of GUIDE Association.

8.2.1. International Conferences And Regional Workshops

The International Conferences encourage cooperation between the member universities, providing important moments of reflection and debate on specific issues such as: digital divide, best practices and international quality standards and applications for distance learning. The initiatives are the starting point for the development of projects and proposals deriving from the needs of the target areas and arising from their representatives.

Here below there is a list of the main initiatives and events organized by the GUIDE Association:

- GUIDE Conference 2006 – “Towards the development of Common Platform for Global Cooperation”, February 13th – 14th 2006, National Research Council, Rome – Italy,
- Thematic Workshop European Area – “Excellence Models for a Global University Network”, March 21st 2007, Tischner European University, Crakow – Poland ,
- Thematic Workshop African and Middle-Eastern Area – “Sustainable development of learning systems in Africa and Middle-East through Microcredit. November 25th – 26th 2007, International Convention Center, Dubai – (UAE),
- GUIDE International Workshop 2008 – “E-learning and Multicultural Education: Digital Divide and Digital Opportunities”, May 15th – 16th 2008, Università degli Studi “Guglielmo Marconi”, Rome – Italy,
- GUIDE International Workshop 2010 – “New challenges for e-learning in cultural, scientific and socio-economic development”, March 18th – 19th 2010, Università degli Studi “Guglielmo Marconi”, Rome – Italy,
- GUIDE International Seminar on Virtual Higher Education, October 14th –15th 2010, UNISUL, Florianópolis-SC – Brazil,
- 5th International GUIDE Conference – “E-learning innovative models for the integration of education, technology and research”, November 18th – 19th 2011, Università degli Studi “Guglielmo Marconi”, Rome – Italy.

8.2.2 PUBLICATIONS

The GUIDE Association publishes books and articles after each annual conference and thematic workshop. Such publications constitute an important source of information in the field of open and distance learning as they report and communicate the outcomes of international activities.

The Association, together with the Università degli Studi “Guglielmo Marconi” publishes the official review, *FormaMente*, an international publication dedicated to multidisciplinary research within the field of new communication technologies.

The journal collects and publicizes original contributions by the Association members as well as articles and reviews in their original language selected among those published in specialized field reviews. Such material concerns the digital perspective and in particular distance learning methodologies, digital life science, e-learning applications, e-communication, networked universities and mobile learning.

The review is structured in three different sections, collecting contributions of excellence

related to scientific research activity, technological applications, case study analysis and best practices.

In this framework, articles, interviews and contributions offering an in-depth analysis of specific themes generally discussed in international meetings and conferences come to play a fundamental role.

FormaMente is issued four times a year. All the articles are also available in summary version on the official website – <http://formamente.unimarconi.it>.