



Design e-Learning Platform for Collaborative Innovation. Long life learning for Italian “Know how” and... “Know why

Dalia Gallico

Professor, University San Raffaele Roma, Italy

	ABSTRACT
<p>2016 Research Leap/Inovatus Services Ltd. All rights reserved.</p> <p>DOI: 10.18775/jibrm.1849-8558.2015.53.3001 URL: http://dx.doi.org/10.18775/jibrm.1849-8558.2015.53.3001</p>	<p>E-learning, knowledge sharing, design education as a productive sector and collaborative innovation are all concepts that are ke elements of this case study. One hundred design schools are now operating in Italy. Results, obtained from the first accurate research give a first benchmark of design learning and formation industry in Italy, in its wider meaning too (product design, fashion design and communications). One hundred schools and thousands of students are many or few? Are professional figures created by schools and their competencies suitable for market requests? What relations are there amidst schools, enterprises and institutions? Which problems or expectations are there in design schools today? The learning and education sector, as all industries, needs strategies, development policies, sustainment laws, qualification and promotional instruments, political attention. There is a particular focus here on the question of what role design should play in innovation in the future. Other key topics include the role of e-learning and of long life learning. Such roles are not always easy to explain, since they differ from case to case, but Design in Italy is – and will increasingly become – a definite value and a competitive tool. Design can and must be a fundamental part of every single company’s production, communication and distribution strategy. The e-learning platform launched by Università Telematica San Raffaele Roma’s “Design for Business & Business for Design” is intended to demonstrate that design is neither a sole interest nor an exclusive prerogative of large companies or those operating in sectors that have traditionally been design oriented. In fact, design driven education and innovation is a basic lever for competitiveness and internationalization that is available in every sector. Creating an e-learning platform is an important opportunity of building a new designing and community identity; a significant chance to meet and a landmark not only for professionals, but also for creative people working outside established enterprises (from every countries). Conclusions are about design education and possible future developments, the role of design as a key competitive variable for the system, the new professionals and the winning models: instances of success, failure and best practices.</p>
<p>Keywords: E-learning, Collaborative innovation, Knowledge toward specialization, Know how toward design management, Knowing how to be ethical formation; Long life learning, Knowing how to make system; Training professionals, Designforbusiness, Business for design</p>	

1. Introduction

The first Italian *designers* were self-taught, coming from workshops, laboratories or schools of architecture and engineering; along the way, they left an indelible print in design history. In the Seventies the ISIA (Artistic Industries Institutes) were founded as designated places for experimental courses with. In 1993 the first university degree in design was launched at the Politecnico of Milan, a sign of a multi-technological culture that relates technical and scientific knowledge to humanistic subjects. This was followed in 2000 by the first design department, also located at the Politecnico. In these early years industrial design instruments found their application in many industries, from communication to fashion, and from light to colour, as many universities and schools began to offer a wide range of design degree courses at bachelors and masters levels. There is now a proliferation of private degree and masters courses which are not always related to industrial reality. The University Administration has declared the existence of “degree inflation”. The number of degree courses has quadrupled (26.207 students registered last year). This situation poses a question whether, behind the shield of culture,

there is only a business speculation, creating an industry of illusions.

To acknowledge the “learning industry” of creativity and project, we need strategies and investments for developing human resources into an “Italian Design System”. We need excellent schools equipped with wide resources and autonomy, which are able to manage laboratories, museums and archives. This kind of school become an important meeting point for professionals (students and teachers) and for creative people (who are trained inside the school or join the school in the future) standing outside schools. These excellent schools represent a new positive identity for the subject of design. In the future, design education is likely to be characterized by a growing need among learners to access local content and to develop both personal and global knowledge in different social contexts and environments. There are many different learning situations outside the classroom and the workplace that could use the knowledge that is produced and shared through social learning experiences.

2. Background

In these years the approaches to industrial design's instruments found their application in many industries, from communication to fashion, from light to colours, as many universities and schools began to offer a wide range of design degree courses, bachelors and masters.

The multiplication of universities, is not only an actual Italian feature. Journalese articles and television broadcasts, denounce the poor quality of many degree courses: many of them are born only for personal motivations or political careers, or else, they are closing due to the low attendance.

Today we could talk about "High-schooling" universities, *This situation poses a question: behind the shield of culture, there's only a business speculation, creating an industry of illusions.*

Against these results, without future certainties, we need new thinking models, new ideas about how and what to do without certainties, new educational approaches inserted in a creativity and intellectual-based values context.

The question is: how could design schools reach this goal? The training vocations must adapt first to the changes: cultural changes, technologies introduction, growing importance of "intellectual heritage" and "knowledge" related to facilities and goods possession.

At same time the "apprenticeship" experience is fundamental to acquire a technical maturity indispensable for a concrete experience. We should work on schools to encourage a training environment where new creative figures could grow up, improving their skills, working together. But schools could be in addition a continuous landmark that goes beyond the starting mission of learning.

To acknowledge the "learning industry" of creativity and project, we need strategies and investments for developing human resources into "Italian Design System".

We need excellent schools equipped with wide resources and autonomy, schools able to manage laboratories, museums, archives, and so on. This type of schools become an important meeting point and landmark for professionals (students and teachers), and for creative people (trained inside the school or joining the school in the future) standing outside schools. These excellent schools must be Design Center where to build the identity and project sense.

We need better tutoring, from professional designers and enterprises, about young designers' projects. They should work together in order to accelerate the knowledge transfer and creating a fruitful global system: that would be useful for learning and for a chance to select partners involved in future ideas and energies.

We need a better alignment between learning and industry, because without cooperation it is hard to obtain good results. Another significant feature is the presence of learning system inside the complex research and production system that claims in our territory, young talents, new researchers and ideas producers.

We need better relations between applied research and design learning, because the new school of intuitive learning clashes against the old school of engineering deduction. An invention could be casual, but creativity is an awesome gift, but it must be properly expressed.

The research of "new" design is looking for new fields. Design as a conceptual project penetrating inside life, distorting all service enterprises. Life-design is the perception of which outcomes from society, from interpreting needs to interpreting which is indirectly suggested. It focuses itself on human being and what stands beside him: meetings, jobs, expectations, entertaining, learning, movement... Not only designing beautiful, tissues, dresses, chandeliers or sofas, but also projects for communities, social situations, living moments.

Following the better Italian tradition, this system is often based on various scientific e cultural units, substantially isolated and autonomous, mistrusting each other, focused on their individual future.

There's a lack of law reforms concerning the modernization of Italy that could enormously influence this industry development: the deregulation of technical professions, the whole reorganisation of artistic learning, the cancellation of university degree legal value, the acknowledgment of phenomenon from the industrial community board, the regulation of job system oriented to help thousands of temporary workers and graduated sustaining the industry from bottom.

Structures. Areas. Approaches.

Design is an evolving subject, because its operative context is constantly changing (Production, society, and so on).

Beside some historical areas such as product design, interior design and visual design; new subjects are growing such as fashion design, service design, marketing and management design.

According to a comparative analysis about different standards (in particular those described by Joan Vinyets in "Reflexions on design Teaching") we could outline four types of design teaching:

- continuity of creative tradition in product developing by using craftsman's work
- relating with the art world used as a creative instrument for ideas and projects
- orientation towards a job, shaped by new information technology instruments
- researching and developing new standards for subjects, science-based about the different knowledge areas, from creation to production and expenditure.

That should be an opening to new knowledge areas, considering the recent fragmentation and exchange generated towards product creation.

This article leads to identify the new agents and the process range involved, in order to give an answer to new needs posed to designers. This standard could be strong but risky inside a stock market, but it's indispensable and very innovative.

We could start from this sentence to affirm the need for a diversified learning industry, considering changes generated by new industrial development and new marketing strategies born from globalization.

In the last 30 years, design learning institutes have constantly grown up. As a result, it is not wrong talking about wide range design learning, so we could trace a roadmap showing the different teaching standards and the subject which got major or minor importance: knowledge, facilities, opinions, values and methodologies.

This survey could be considered as a "white book", a first roadmap, a chance to argue on hundreds of learning institutions, public and private schools, different standards and production features concerning learning design industry in Italy.

Inside this roadmap are not considered data such as standings, judgements or evaluations, but simply information such as student numbers, registration fees or number of laboratories. The research shows a learning supply articulated in 100 schools located in Italy; in particular the universities and a considerable range of private schools are considered the most active; including other types of schools such as vocational schools coming from the set of decorative and applied arts (professional institutes for industrial crafts, fine arts institutes, industrial vocational schools)

Last, but not least, an interesting set of interviews has been made to entrepreneurs, managers, teachers and designers, that show up a big gap between learning system and job system. The enterprises today, are aware that surviving is related to conceiving products beyond marketing and trend rules. They must build an authentic enterprise culture and reach a strong skill leading to innovation of new products able to answer to the different customers' needs.



Figure 1: 100 design learning institutes located in Italy.
Source: Author's construction

3. Long Life Learning

In a social context and tumultuous changing economic situation, the best strategy is to remain flexible, in order to open the dynamism and respect of individual and shared forms which may from time to time be more suited to face the storm. To do this, you must continually refine the tools, and implement change incessantly regarding knowledge and skills, and continue to innovate assiduously.

It is this ongoing process of life-long learning, or education through the entire life, which is one of the guiding principles of the policy community formation and to which training initiatives of a formal or informal nature need to be devoted. There is as need to refresh a permanent spring from the "turbulence" of the system of knowledge, which is in continuous evolution because of the progressive acceleration of scientific and technological progress. However, it is mainly the result of enlargement of the global competition, not only for goods, but also in the professional. As for products and services, they must be created by professionals and possess the requirement of distinctiveness, by being original and hard to imitate. Career paths which are increasingly wide, varied and which incorporating their personal space into the global market create professional profiles and are hard to classify. These figures are referred to generically as "new professions" or "knowledge workers" as defined by Peter Drucker, and focus on the intensity of the exchange of knowledge generated by new professionals. Among the "knowledge workers", the professionals assume an increasing importance of knowledge bearers' "connectives", able to connect different fields of knowledge and specialized language.

Among these types of knowledge design arise which could be said to stretch traditional knowledge frontiers, and which triggers a virtuous dialogue between different disciplines in order to generate new products, services and experiences. Becoming involved in life-long learning in the field of design means that one has time to learn new languages and explore increasingly large disciplines in order to trigger a growing number of new ideas. It also emphasises the honing of particular skills, including the acquisition of management skills and stimulating a growing "process" that will improve a person's ability to generate reports.

4. The School as a "Design Center"

Each school is essentially a cultural center, a center around which sooner or later end up gravitating artists, designers, businesses, students and young people attracted by the convergence of the brains, events, events in the city, studies, youth groups, electronic journals, blog, publishing and support services to the project, new jobs, advertising agencies, special restaurants, new meeting places, music groups, students, professors from all over the country and abroad.

Each of these places is first of all a "work in progress in continuous transformation" without data models, without any conditions other than those that the operators of school every day are invented to hold together the needs of creative development and current accounts in red, administrative

bureaucratic constraints and testing, resource-poor structural and continuous dialogue globally.

Each place of training is, first of all, a place of research and investment in research is a measure of the quality of the school itself. Scientific research is the foundation for innovation and the continuous enrichment of teaching and contributes to the development and dissemination of a culture of design is constantly evolving.

5. Knowledge towards Specialization

The progressive complexity of the social structure and the Italian production and global revival of forms of craft-industrial production mixed with the new global division of labor, the emergence of ever new market niches related to the service and to mediate between people and businesses have also ensure that the provision of training related to the design, as well as training in general.

At the same time, the desire for "quality cultured", it's made in Italy, which each year attracts in Italy, as already noted, thousands of foreigners at major training centers to design, requires that the institutions forming the preservation of its character of Italian education: openness, trans disciplinary, cultural background "stretched". Open to experimentation in different fields of knowledge and practice, the solid foundation of the humanities and the assiduous "attendance of beauty" characterize the profile of most of the masters of Italian design. Also, do not forget that many of them were formed in a period when there was a training specific to the designer. In Italy, when you remove a few exceptions, until the designer was an architect." And the training offered at the faculty of architecture, rather than specialized knowledge, a cultural foundation, helping to place the object in a social context and broader spatial.

Remember these aspects does not mean you want to subtract value to the path often demanding that led to the birth of the first places to design training path which many of the masters of Italian design have helped with passion and generosity, and to which even today they help with younger, but no less enthusiasts, professionals. Means rather emphasize the value of a long-term vision has, especially in the early years of training. All trainers interviewed agree on whether to postpone the specialization in the final stages, even to periods of internship or professional practice, leaving the field, during the first years, "continues crossing disciplinary".

It is important that specialization takes place on the basis of actual training needs expressed by the market, thanks to the close-contact training centers and companies with a great attention from the schools to the needs of industry. To become good and innovative professionals must learn a method to develop a strong awareness and create a great culture. These are the most important challenges in the classroom.

6. Training Professionals

As a professional designer is able to be a person of business consistent with the need to deliver value to the business, but also social conscience handler criticism of the consumer society, which is better for all of us consumers.

Designers will continue to enjoy being part of a day, a select group of elected officials who "shape the goods and services" (so that count in a society such as the contemporary remains primarily and only a consumer society). You can enjoy even more knowing free to choose which production system give its intelligence, with what constraints, for what purposes, exercising professionally aware that the market designer (as recalled De Fusco, 1985) is a mediator of interests, including those the producer and the consumer.

The Italian economic system is engaged in a major process of change in order to regain competitiveness and to respond to the challenges of the global economy. A process that has as main objective productivity growth and, therefore, requires a strong investment in innovation of products and production processes, organization and ultimately in human resources.

It 'a path faced by individual companies, but it is necessary that beside them there are institutions at national, regional and local know how to understand the meaning of the changes taking place, immediately adapting programs and operational strategies.

7. Conclusion

For number, size, quality, reputation, Italian schools of design are an important phenomenon. The size of this relationship is demonstrated. A set of companies, universities, professionals, students giving the proportions of a real "productive sector" in forms and entities organizationally different but active (increase of 22% over the last 6 years).

Difficult henceforth ignore it, by anyone who wants to pursue development policies of innovation, research, education and culture.

This sector produces "products and services" that are very important:

- Because they concern the construction of professional profiles for the central Italian development model, made of processing capacity and enhancement of the national cultural heritage, tourism, quality of life, style and taste;
- Because they are a platform for continuous exchange between companies, government, young people, professionals and intellectuals at the international level;
- Qualify for the territories in which they settle, moving people, attracting brains, watering of thought and action and contaminating the city so multigenerational.

Learning design has a naturally strong link with industry and the job system, which in both cases testifies to many internship experiences (in university these experiences are mandatory) and which involves industries in their learning projects. These links are also verified by a wide range of exchanges, as explicated in a large number of competitions, workshops and joint projects.

We need better tutoring, from professional designers and enterprises, about young designers' projects. They should work together in order to accelerate the knowledge transfer and create a fruitful global system that would be useful for learning and for selecting partners involved in future ideas and energies. We need a better alignment between learning and industry, because without cooperation it is hard to obtain good results. Another

significant feature is the presence of learning system inside the complex research and production system that claims in our territory, young talents, new researchers and ideas producers.

We need to establish better relations between applied research and design learning, because the new school of intuitive learning clashes against the old school of engineering deduction. The new concept of research involves young designers working inside small enterprises where the passion for new projects is constantly being fed. In such situations, creativity is involved from the bottom to top. Research into “new” design is searching for new fields. Design is a conceptual project penetrating inside life, distorting all service enterprises. Life-design is the perception of which outcomes can arise from interpreting society’s needs, especially interpreting what is suggested indirectly. It focuses itself on human beings, along with meetings, jobs, expectations, entertaining, learning and movement. This does not only involve designing beautiful tissues, dresses, chandeliers or sofas, but also projects for communities, social situations and living moments.

The question that this article has aimed to answer is whether a platform for e-learning can become a tool for the development of new models for creativity, design and innovation, transforming the concept of e-learning, and shifting towards the concepts of creativity learning, learning design and learning innovation. The experience described here suggests that this is what happens, generating new needs in terms of functionality of the platform, which must then be enriched with elements that encourage debate and the exchange of the community. In order to encourage creativity, design and innovation are not associated with the concept of randomness, but are part of a process and a method that is implemented in a dynamic way with the use of e-learning, producing a shift in the concept of e-learning.

The development of networks, of knowledge, relationships and ideas that transversely characterize the current system of arts and knowledge is based on the sharing – by different circles – of information, documents, tools and services, which facilitate innovation; itself the source of design processes. It is the dynamics of the movement of ideas, rather than their delimitation in circumscribed areas, that now draws up the productive landscape, broadening limits and borders, and the creation of ideas or products. This, more than the factory is the real unifying force.

Using its specific skills, it enters the arena of business, economic policies and cultural strategies, through using the new functions of design management and design direction that, by coordinating design, management and planning activities all the other business functions, push towards the redesigning of production, and communicative and distribution strategies; all of which come together to give the same definition of the business and its place on the production stage.

At last we can say that an E-learning platform is now very important to:

- Promote and disseminate the culture of design, stimulating demand;
- Structure an offer of services to develop processes based on design innovation in enterprises, measured by their real needs;
- Encourage the use of services facilitating understanding and access.
- Promote the emergence of a new network of service companies in the field of design, a real infrastructure for operating in the territory of new knowledge, creating by young professionals coming from a large pool of specialized training that puts together together a package of skills to support innovative business processes.

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