

ICERI 2008 Madrid 2008  
17<sup>th</sup>-19<sup>th</sup> Nov



International Conference of Education, Research and Innovation

This is to certify that:

**Valentina Auricchio**

has presented the paper entitled:

**DESIGN EDUCATION AND GLOBALIZATION. INTERNATIONALIZATION OF DESIGN RESEARCH  
AND EDUCATION CENTERS**

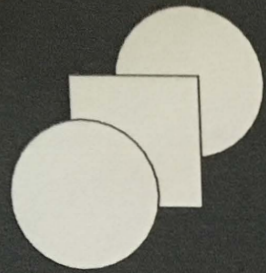
at the International Conference of Education, Research and Innovation  
held in Madrid, 17<sup>th</sup>-19<sup>th</sup> November, 2008.



International Association of Technology, Education and Development

421

ICERI 2008, LOCAL ORGANIZING COMMITTEE



ICERI 2008 Madrid 2008  
17<sup>th</sup>-19<sup>th</sup> Nov



International Conference of Education, Research and Innovation

## Certificate of Participation

This is to certify that:

**Valentina Auricchio**

has participated in the International Conference of Education, Research and Innovation  
held in Madrid, 17<sup>th</sup>-19<sup>th</sup> November, 2008.



International Association of Technology, Education and Development

# DESIGN EDUCATION AND GLOBALIZATION. INTERNATIONALIZATION OF DESIGN RESEARCH AND EDUCATION CENTERS.

**Valentina Auricchio**

Politecnico di Milano, Design Faculty, INDACO Department  
Italy  
*valentina.auricchio@polimi.it*

## Abstract

Today, small enterprises and artisans are facing a difficult moment in which they are not able to understand how to survive in a evermore competitive and global market. They no longer have contact with final users, which often live in other territories and belong to different cultures, and do not have the tools to connect and innovate at an international level.

Since the early 70's, designers around the world have been working in this arena with the aim to help artisans reach new markets and learn how to develop autonomous innovative processes. Through transfer of knowledge and support in creating networks, designers have shown unique capabilities that can support internationalization processes of territories worldwide by:

- \_identifying new markets and interpreting cultures (EXPORT);
- \_identifying new technologies (CO-PRODUCTION);
- \_identifying new cultural context (CO-DESIGN).

In this scenario, design research and education institutions have had a fundamental role in engaging new research paths and developing education programs in the fields of design management and strategic design in order to support international competitiveness. The strive for internationalization has pushed design institutions to enlarge their networks, connect with territories and give students and staff the opportunity to widen their view. By doing so, they have become strategic entities for the internationalization of their countries.

In the knowledge based society, education and research institutions have become important actors in supporting the international competitiveness of their territories by developing innovative researches and forming new professional profiles. By doing so, design research and education institutions have become gateways for companies interested in connecting and competing internationally.

Today, there is a large amount of design centers, institutions and professionals who believe that design can have a strategic role in helping artisans and small companies in building global value chains. This belief has been demonstrated through real projects that show that designers are capable, not only in developing new products and services, but also in building global value chains that allow artisans to access new markets. Through these projects, designers transfer innovation capabilities to communities, enabling them to connect with partners worldwide. However, this field is still not recognized as a research field in design and there are very few courses which aim to form professionals capable to replicate successful experiences in other contexts. This is also due to the fact that, up to today, design tools applied have not yet been codified.

The research developed has aimed to collect projects that have been carried out in the past ten years in this field. Projects that have been developed by design centers, institutions, individual designers that demonstrate that design can have a strategic role in social and economical development. These projects are mainly lead by the desire to help artisans and small producers to reach new markets and to build connections with partners worldwide.

Although the methods and tools identified still require confrontation and verification in other contexts, the catalogue of projects collected throughout the research is the first of its kind and the hope is for it to be a starting point for an international debate on design methods and tools applicable in this research area.

The area of reference of the research is Social Design and it historically refers to those projects in which designers have had an important role in connecting the periphery with the center. Victor Papanek, Gui Bonsiepe and Victor Margolin have been the main design theorist in this area. [1]

The final analysis of the projects aims to give a future view on the trajectories taken by the actors involved, the lessons learnt and the suggestions on how to take forward a debate in this field in order to develop new research and form future professionals. [2]

## **Keywords**

Strategic Design, International education, International networking

# **1. INTERNATIONALIZATION IN THE KNOWLEDGE SOCIETY**

## **1.1 The role of the university in the Knowledge society**

In the Lisbon Agenda of year 2000, the European Union had defined the ambitious goal to become a competitive and dynamic economy based on knowledge (knowledge based society) within year 2010. Less than two years are missing before the deadline and many European researchers are questioning themselves if we will reach the goal or what is still to be done in order to reach it.

The definition of the “new Europe”, defined as “Europe of knowledge”, has placed universities, defined as “knowledge industries”, in the center of the debates on the relationship between universities and innovation and in particular on the capabilities of universities to transfer knowledge in order to increase the competitiveness of the European economy.

According to Paola Bertola, researcher of the Politecnico di Milano, in this scenario “knowledge economy or cognitive capitalism are the main definitions given to define contemporary economy” and “the attention given to individuals and on human resources in general, considered as the distinctive element for companies instead of material resources, allows education institutes to be in the center of contemporary debates in this field”[3].

According to Jos Beelen [4], in this context there is a need for a crucial change in the traditional vision of the “linear relationship” between university and companies which must be converted into a “circular relationship”, more interactive and open giving birth to what Beelen defines as an “open innovation model”. He also believes that universities have a central and strategic role for the development of a “innovation-friendly society” since it is the only actor which is capable to simultaneously act on the three sides of the “knowledge triangle”: research, education and innovation.

In this context, universities not only are at the center of global transformations, but they are “key players” for determining future social and economical dynamics and therefore they must develop capabilities not merely to produce knowledge, but also to critically anticipate changes and transfer knowledge through research and education in order to push towards better “possible futures”[5].

## **1.2 Competitiveness in the knowledge society**

Another interesting effect of the transformation towards becoming a knowledge society lays within the definition of international competitiveness.

In economical terms, competitiveness is measured by confronting “prices”: if we take two “identical” products A and B, where product A has a lower “price” than product B, we can say that product A is more competitive than product B. Following this simple equation, companies have always aimed to reduce their production costs, in order to be more competitive, giving birth to the well none phenomena of delocalization.

However, in the real world, this factor is much more complex and, if we look at the most successful companies worldwide, we can notice that the levers of competitiveness can also be found in the strive for quality and in general in the brand image.

This simplified description of facts aims to identify the important shift that has already occurred from a traditional concept of competitiveness based on “cost differential” to a more abstract concept based on “value differential”.

According to Brunetti and Rullani, there are three new forms of competition for Italian companies: development of quality; self-production of knowledge; creation and protection of a cognitive differential with respect to other emerging countries [6]. This phenomena has already been well described also by other authors such as Richard Norman and Rafael Ramirez with their definition of value constellations which push towards new business models that invest on knowledge creation and the development of a complex system of relationships with other entities [7].

In this context, in order to be competitive, companies must invest more on knowledge, human resources and network building rather than on material resources, hence, invest on the development of quality and cultural values rather than trying to merely reduce production costs.

### **1.3 Small and medium enterprises and internationalization processes**

The terms internationalization and globalisation are not the same even though in many debates they are used as synonymous. One could say that globalization induces internationalization, hence, globalization is the phenomenon which characterizes the actual paradigm and internationalization is the process through which actors can become competitive in this paradigm.

In fact, today internationalization seems to be a necessary process for whatever entity desires to compete in the global arena, from countries to single individual companies. The planning and starting-up of internationalization processes is a must in order not to remain “un-connected” and therefore forgotten from the rest of the world. In some cases, in some sectors, internationalization has gone from being a *desired* process for increasing competitiveness to becoming an *obliged* process for survival. This is ever more so when we deal with small and artisan companies.

Some believe that the end of manual production and of small enterprises in general is a natural evolution due to the increase of international competitors, and that companies which are not able to re-invent themselves must disappear and leave the scene to more evolved actors. Others believe that the absence of adequate services (education and capacity building services) which allow small entities to have access to international networks and freely act inside new social and economic systems, does not allow these realities to build strategies which are more suitable to both local and global assets.

The second hypothesis is the one that has guided some design universities around the world through the development of specific responses to the crisis of small and micro enterprises. However, it is important to define another shift that has occurred within the definition of internationalization before proceeding.

Internationalization has always been conceived as an “export” activity, subsequently also delocalization, joint ventures and other more sophisticated ways to connect to international partners have enlarged the definition. Today, this term seems to be “lost” inside a wider view of the world in which “fiscal boundaries” have been replaced by “community boundaries” where culture, values, ethics and in general social aspects seem more important than geographical localization. Therefore, there has been an evolution from the internationalization of products, to the internationalization of processes, to the definition of international cultural flows [8].

Today, internationalization can be seen as an activity that gives access to international networks of design, production and commercialization and that enables the creation and management of international value chains.[9]

## **2. THE UNIVERSITY AS A GATEWAY FOR INTERNATIONALIZATION**

Education and capacity building services are two of the main missions of universities. In particular, design universities which are constantly in contact with companies, can act as strategic actors by offering specific services in order to help companies increase their competitiveness. Design institutions can become “poles” able to connect the academic world with the productive world, a place where multidisciplinary actors can meet, a neutral platform where one can identify new opportunities and build national and international networks (value constellations).

However, to support internationalization processes one must be international and this applies both to individuals and universities. Universities undergo the same pressures of competition as any other social actor, over more increased by systems of international ranking which are constantly defining the standards of education and research worldwide. Furthermore, as for enterprises, the definition of internationalization of universities has also gone through a major change: from the internationalization of students (through exchange programs), to the internationalization of staff, to the development of multicultural courses and combined international curricula. Indicators of the level of internationalization of a university have gone from only measuring the number of exchange students to taking into consideration also human resources and international funding. [10]

The positive aspect of international ranking, discarding the risks of commodification of higher education institutes, is that they have pushed universities to "go global". Universities have developed international management and strategy capabilities which allow them to link to different actors worldwide, from other universities to embassies and consulates, from chambers of commerce to international trade institutes, from multinationals to non-profit associations. This ability of universities to build multidisciplinary partnerships has re-positioned a traditional education institute and transformed it in a strategic actor for its country.

## **2.1 Knowledge transfer projects as important actions for the internationalization of universities**

One of the activities which are part of and can also increase the level of internationalization of staff and students are knowledge transfer projects. Knowledge transfer projects are activities usually linked to technology transfer, but that can also involve non-technological knowledge as in the case of design driven innovation. These activities are very different from one another, but there are some common characteristics which can be pointed out:

\_the projects consist of a planned combination of education and research activities which aim to help a community or single entity to develop skills in a specific field;

\_in general these projects take place in a specific territory which is outside of the university's perimeter and therefore are made of a combination of on-field and desk research;

\_there can be many different actors involved in the project, but mainly there is a group of actors which transfer the knowledge to a group in which there is a gap of knowledge. However, this operation is never linear and is never unilateral. In many projects it often occurs that those transferring knowledge have in reality achieved more knowledge (in other fields) than those receiving;

\_defining the results of a project can take many years, some say up to four generations [11], and requires a careful system of monitoring;

\_ the projects can involve both students and staff of the institution and usually occur in collaboration with local representatives of the hosting territory;

\_there is no limit to budget nor timing of the activities. Knowledge transfer can occur in a limited time or can be ongoing.

One of the critical points in these projects is that there is no continuity from the day the knowledge has been transferred to the actual application of the knowledge in real life circumstances. According to Schumacher there is an important difference between transferring knowledge (know how to do) and using the knowledge (know what to do). He also believes that in order for people to start spontaneously Applying the knowledge transferred in their lives (thinking by something) it will take several generations.

Knowledge transfer projects at an international level can be an "international nourishment" for the entire university system. Students and staff involved in foreign territories, for short or long periods of time, can achieve open-mindedness and develop relationships which give birth to future projects and networks and can also indirectly influence "At-home" staff and students.

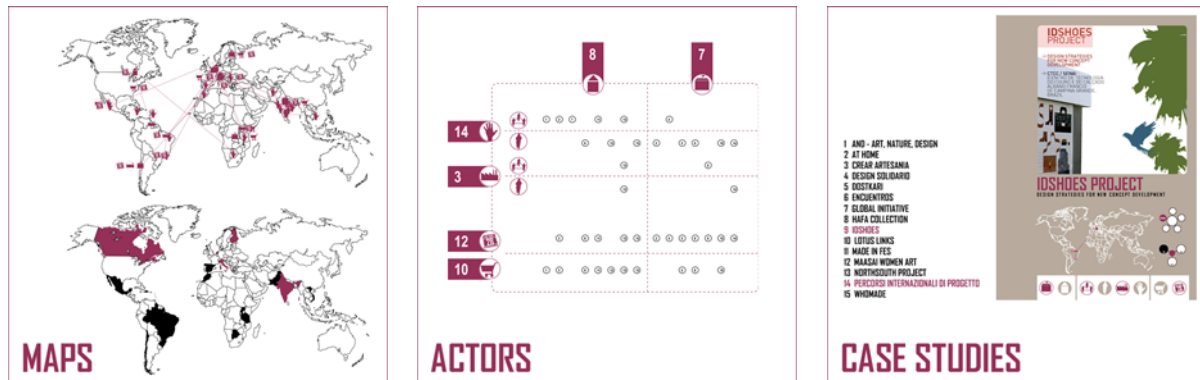
This paper aims to show how design universities have acted in this direction in on-field research projects. The projects collected show that knowledge transfer actions do not only benefit companies but also benefit students and staff and that it is possible to build international communities through these actions.

### 3. CASE STUDIES: BUILDING INTERNATIONAL CREATIVE NETWORKS

In the case of design knowledge transfer, the research has collected several case studies in order to try to codify these experiences and define possible methods and tools for further development. Fifteen projects selected and have been briefly explained through graphs and maps which give a general understanding of the state of the art in this field.

The analysis of the project has been done at different levels:

- \_geographical map of territories and actors involved;
- \_chronological map of the projects;
- \_role of the design actors in the projects;
- \_results respect to the internationalization of the territories involved;
- \_aims and objectives of the projects;
- \_project phases.



The final analysis of the projects aims to give a future view on the trajectories taken by the actors involved, the lessons learnt and the suggestions on how to take forward a debate in this field in order to develop new research and form professionals.

Today, there is a large amount of design centers, institutions and professionals who believe that design can have a strategic role in helping artisans and small companies in building global value chains. This belief has been demonstrated through real projects that show that designers are capable, not only in developing new products and services, but also in building global value chains that allow artisans to access new markets.

Through these projects, designers transfer innovation capabilities to communities, enabling them to connect with partners worldwide. However, this field is still not recognized as a research field in design and there are very few courses which aim to form professionals capable to replicate successful experiences in other contexts. This is also due to the fact that, up to today, design tools applied have not yet been codified.

Although the methods and tools identified in the projects still require confrontation and verification in other contexts, the catalogue of projects collected throughout the research is the first of its kind and the hope is for it to be a starting point for an international debate on design methods and tools applicable in this research area.

Below is the list of projects collected:

- AND - ART, NATURE, DESIGN (Design Academy Eindhoven)
- AT HOME (Design Academy Eindhoven)
- CREAR ARTESANIA (Integral Studio Vinaccia)
- DESIGN SOLIDARIO (Design Academy Eindhoven)
- DOSTKARI (Dastkari Haat Samiti)
- ENCUENTROS (University of Art and Design Helsinki)

GLOBAL INITIATIVE (Dutch Design In Development)  
HAFA COLLECTION (Bab Anmil)  
IDSHOES (Poli.Design)  
LOTUS LINKS (Dastkari Haat Samiti)  
MADE IN FES (Butterflyworks)  
MAASAI WOMEN ART (Istituto Europeo di Design)  
NORTHSOUTH PROJECT (North South Project)  
PERCORSI INTERNAZIONALI DI PROGETTO (Poli.Design)  
WHOMADE (Todomundo)

### 3.1 Forming the international design manager

Unfortunately, there are not many examples of universities which have specific courses for forming international design managers capable to plan effective knowledge transfer projects. However there are single courses that deal with international affairs and globalization. Below is a list of institutions that have been identified:

UNIVERSITY: PARSONS - THE NEW SCHOOL FOR DESIGN  
COUNTRY: USA  
**COURSE: Understanding World Capitalism**  
CREDITS: 3 ECTS  
DISCIPLINE: DESIGN & MANAGEMENT - Economics II

UNIVERSITY: FIT - FASHION INSTITUTE OF TECHNOLOGY  
COUNTRY: USA  
**COURSE: Fashion for Global Markets  
Production Management and Supply Chain  
Global Marketing and Fashion Brand Management**  
CREDITS: 3 ECTS  
DISCIPLINE: DESIGN & MANAGEMENT

UNIVERSITY: CARNEGIE MELLON  
COUNTRY: USA  
**COURSE: Globalization And Design**  
CREDITS: 3 ECTS  
DISCIPLINE: DESIGN & MANAGEMENT

UNIVERSITY: TU-DELFT  
COUNTRY: NETHERLANDS  
**COURSE: Internationalization**

UNIVERSITY: DESIGN ACADEMY EINDOVEN  
COUNTRY: NETHERLANDS  
**COURSE: Master in man and humanity**

UNIVERSITY: UNIVERSITY OF ART AND DESIGN OF HELSINKI  
COUNTRY: FINLAND  
**COURSE: World Design**  
DISCIPLINE: DESIGN DEVELOPMENT

It is interesting to notice that some of these courses have gone from being small preparatory courses for Erasmus students to becoming official curricula for a wider range of students coming from different fields of design (for ex. the "Internationalization" course in TUDelft) and how other courses have been developed merely because the professors were keen travellers and had had different project experiences abroad.

The aim of this paper is also to stimulate the development of this kind of education activities due to a direct experience of the positive results both in terms of faculty and student experience.



## References

- [1] For a further reading: Papanek V., *Design for the real world*, Thames and Hodson, London, 1972; Margolin, Victor and Sylvia Margolin, "A 'Social Model' of Design: Issues of Practice and Research", *Design Issues* Vol. 18, No. 4: 24-30, 2002; Bonsiepe Gui, "Peripheral Vision", *Escola Superior de Desenho Industrial (ESDI) Brazil*, 2004.
- [2] Visit the official website of the research in order to see all Case studies collected – [www.innovstrategy.blogspot.com](http://www.innovstrategy.blogspot.com)
- [3] Paola Bertola in Collina Luisa, *Design e Metaprogetto: Teorie, Strumenti, Pratiche*, Ed. POLI.Design, Milano, 2005
- [4] Jos Beelen, Head International Office, Amsterdam Faculty of Education, <http://www.eaie.org/iah>
- [5] Manzini E., "A cosmopolitan localism. Prospects for a sustainable local development and the possible role of design", in "ME.Design. Il contributo del design allo sviluppo locale", *SDI Design Review*, n.2, 2005
- [6] Brunetti, G., Rullani, E. (a cura di), *Change: Il paese, l'impresa, le persone*, Egea, Milano, 2006
- [7] Norman, R and Ramirez, R, *From Value Chain to Value Constellation: Designing Interactive Strategy*, *Harvard Business Review*, 71, July/August, pp. 65-77, 1993
- [8] For further reading: Crane, Diana; Kawashima, Nobuko; Kawasaki, Ken'ichi, (edited by), *Global Culture. Media, Arts, Policy, and Globalisation*, Routledge, New York, 2002; Bello de Aranaga, Paula, D "GOODSCAPES: MAPPING DESIGN", paper presented at the conference COINCIDENCE & CO-INCIDENCE - 4th International Conference on Design History and Design Studies, Guadalajara, México, 2004; Bauman Zygmunt, *Liquid Modernity*, Polity Press, Cambridge e Blackwell Publishers, Oxford, 2000
- [9] AA.VV. "Internationalization of SMEs 2003/04", in *Observatory of European SMEs*, 2003, n. 4, Luxembourg, 2004
- [10] For further reading: Position paper: "Internationalisation at Home" by Paul Crowther, Michael Joris, Matthias Otten, Bengt Nilsson, Hanneke Teekens, Bernd Wächter published by the European Association for International Education in cooperation with the Academic Cooperation Association, IAK, IÉSEG, Nuffic, Katholieke Hogeschool Limburg and Malmö University, 2000 - <http://www.eaie.nl/laH/laHPositionPaper.pdf>
- [11] Schumacher E.F., *Small is beautiful*, Blond&Briggs, London, 1973