Design schools as agents of (sustainable) change
A Design Labs Network for an Open Design Program

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To educate someone to be a designer involves increasing his/hers skills in conceiving and developing design proposals (from general visions to specific solutions) for a better world. The majority of these proposals, can be seen as didactic exercises that usually end-up in the teacher's archives and computer files. This generates an extensive amount of unused design work as well as a waste of students' and teachers' creativity, enthusiasm and expertise. In the past, this waste was, or was considered to be, inevitable. Today, in the transition towards sustainability, facing the present demand for visions and solutions (Manzini, 2009) and given the on-going changes in the design processes (Leadbeater, 2008), this waste can be avoided: design school results and design student capabilities can become more socially effective and contribute to the solutions of the complex problems of contemporary society. How con it happen? To answer this question we must consider the emerging scenario where open source (Mulgan, Steinberg, Salem, 2005) and peer-to-peer approaches (Bauwens, 2007) make possible new organizational framework and design networks: open and collaborative design processes where design schools can play an important role (DESIS, 2011).

In the emerging scenario, therefore, design schools, with their tremendous potential of students' enthusiasm and teachers' experience, represent a *social resource*: a potentially powerful and useful player in the transition towards sustainability.

New scenario, new design

There is no doubt that today we are facing a deep (environmental, social, economic) crisis. At the same time, everybody agrees that the diffusion of networks and mobile technologies is opening new and until now unforeseeable possibilities. Finally, there is clearer and clearer evidence that these two mega-trends are converging and that, doing so, they are generating new ideas and behaviours, new economies and, most importantly for us here, new design and production processes.

As a matter of fact, what this *emerging scenario* presents is a radical discontinuity with the models of the past century (Manzini, 2010). An exhaustive presentation is beyond the scope of this paper, but in order to discuss the possible role of design and design schools as agent of sustainable change, two of its main features have to be outlined: the on-going shift *from product to systems and services* and *from linear toward networked design processes*.

Services and systems. In the emerging scenario, "products" are complex entities, based on the interaction between people, products and places. For instance: distributed power generation systems (to optimize the use of diffuse and renewable energies); new food networks (to create direct links between cities and countryside); intelligent mobility systems (to promote public transportation and innovative solutions); programs of urban and regional development (to enhance

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local economies and new forms of community); collaborative services for prevention and health care (to involve directly interested users in the solution).

Considering these "products" of the emerging scenario we can easily see that they are (mainly) technical and social networks, where people interact (and in turn interact with products and places) in order to obtain commonly recognized values. Operating in these networked systems, *design* (intended as the design community of professional designers, design researchers, design academics and design media) shifts its focus from last century's product-oriented approach, towards a systemic one where the main attention is devoted to interactions. And where the 'objects' to be designed are a complex mix of material and immaterial systems of highly interconnected products, services, places and people (Manzini, Collina, Evans, 2004; Halen, Vezzoli, Wimmer, 2005; Thackara 2005; Green, 2009; Pauli, 2010).

New design networks. In the emerging scenario, designers (i.e. the experts who have been specifically trained in design thinking and design knowledge) are changing their position within production and consumption systems. In fact, the systemic changes they have to face are driven by a growing number of actors who together generate wide and flexible networks that collaboratively conceive, develop and manage sustainable solutions. Of course, in these new *design networks* the position and role of professional designers (the *design experts*) changes. Traditionally, designers have been seen and have seen themselves as the only creative members of interdisciplinary design processes. In the emerging scenario this clear distinction blurs, and they become professional designers among many non-professional ones. But even if this distinction blurs, it does not mean that the role of design experts is becoming less important. On the contrary, in this new context, design experts have the crucial function of bringing very specific design competenceto these co-designing processes. That is, they become a particular kind of process facilitator who uses specific design skills to enable the other actors to be good designers themselves (Leadbeater, 2008; Manzini,2009; Murray, Caulier-Grice, Mulgan, 2010; Brown, Wyatt, 2010).

Thus Design schools can play an important role in the emerging scenario and, more specifically, in these new design networks. They can generate original ideas and interact with local communities to trigger new initiatives or support the on-going ones.

Facilitating design networks

Design schools are, first and foremost, places where the next generation of design experts are educated. This fundamental educational role, can be considered an *investment on the future*: if we want to build a better future, we have to prepare better people, in this case, better designers. However, to build a better future design schools now have the potential to play a second important role: that of *agents of sustainable change:* of critical and creative actors in the on-going transition towards sustainability.

It is important to note that this second role (agents of change), largely reinforces the first one (to educate future generations of designers): as the world continues to undergo fundamental changes, the most effective way to prepare future (competent) designers is to involve students in problems, opportunities and design methods that today appear radically new and as yet involve only a small number of active minorities. Thanks to this involvement, students have the potential to play a meaningful role in contemporary society now (empowering the innovation processes that active minorities are generating) while simultaneously equipping themselves to be the leading designers of the future (when the problems, opportunities and design modalities that are emerging today will become the new standards). To this end, a Design Lab can be established within each school (DESIS, 2011).

The expression *Design Lab* refers to *a team of researchers, teachers and students who orient their didactic and research activities towards promoting sustainable changes. As part of this process,*

they communicate with other similar Labs, exchange experiences and join forces to give their results more visibility, and find potential partners with whom to build larger scenarios and solutions.

More precisely, what these Design Labs can do is to operate in peer-to-peer mode, as intelligent actors in the new design networks. More precisely, they can use design classes and academic and professional design research to stimulate and support design networks in several ways:

- *Investigating,* exploring local resources and social innovation initiatives using ethnographic tools and user and community-centered design approaches to better understand problems and opportunities.
- *Facilitating,* supporting the co-design processes by using participative design tools to facilitate the interaction and convergence between the involved parties.
- *Visioning* , feeding the co-designing processes with *scenarios* and *proposals* at different scales: from the smallest (considering specific local problems), to the largest (aiming at building shared visions of the future).
- *Communicating,* giving the social innovation initiatives more visibility, explaining them and creating the preconditions to disseminate them, thanks to specifically designed communication programs (websites, books, exhibitions, movies, …).
- *Enabling,*empowering individuals and communities with dedicated solutions (the *enabling solutions*), which permit hem to start and manage new and promising collaborative organizations.
- *Replicating,* scaling-up promising collaborative organizations and making them more replicable, thanks to *toolkits* and/or *specifically conceived products and services.*
- *Synergizing,* promoting large-scale systemic changes and regional programs by developing *framework strategies*, specifically conceived to systemize, and synergize, a variety of local initiatives.

On-going projects

To better understand how design schools, via their Design Labs, can operate in the merging design networks, we can consider the concrete example of the *Nutrire Milano* project in Milano. Nutrire Milano (http://www.nutriremilano.it) is an on-going initiative aiming to regenerate the Milanese rural-urban agriculture (i.e. agriculture near the city) and at the same time offer organic and local food opportunities to the citizens by creating brand-new networks of farmers and citizens based on direct relationships and mutual support.

This project is particularly meaningful in indicating what the role of Design Labs could be. Years ago DIS (a didactic and research unit of the Indaco Department-Politecnico di Milano) started design classes and academic research on this theme and one year ago, in collaboration with the Slow Food Association and several other partners, it succeeded in promoting the Nutrire Milano project, founded by a bank foundation (the Fondazione Cariplo), to be implemented over the following 5 years (Meroni, 2008). In this example, the design classes had the role of preparing the ground for implementation of the project. First of all, they facilitated the recognition of existing (social, cultural and economic) local resources and best practices. Moving from here,, they outlined a strategy, considering the emerging trends towards a new possible synergy between cities and their countryside (similar to those towards 0-mile food and proximity tourism). Finally, on this basis, they built a shared and socially recognized vision: the vision of a rural-urban area where agriculture flourishes feeding the city, at the same time offering citizens opportunities for a multiplicity of farming and nature related activities (Meroni, Someone, Trapani, 2009).

Now, the project has moved on from the design class and academic research stage and is ready for implementation. It is remarkable that, thanks to this preliminary work, a large project like this (planned to last 5 years and involving a very wide regional area) has already obtained a first concrete result (the huge success of the Farmer market)in less than one year since its start-up. We

should add that two new initiatives will be started in the next two years and that several others are programmed for implementation in the future.

Other initiatives, similar to the Nutrire Milano project, can be found worldwide: in several design schools teams of researchers, teachers and students are working on projects that increasingly involve other outside players and generate social consensus, political will and economic resources to become real-world, operative programs. Just to quote two well known cases, we can indicate the *Chongming Eco-community* project, in Shanghai (http://chongmingtao.blogspot.com) and the *Amplify Project*, in New York (http://desis.parsons.edu). But, for sure, the list of cases could continue and expand in all regions of the world (for more examples, see *http://www.desis-network.org* and http://www.sustainable-everyday.net).

In conclusion of this part, we can say that these examples give clear indications of what the role of Design School Labs has been and could be, in promoting sustainable changes, mixing didactic and research activities in schools and collaborating with various stakeholders in real-world projects. We can observe that Design Labs start, develop and coordinate this kind of project in different ways and at different scales: from local (where they co-design specific initiatives with local actors) to regional (where they cooperate with other stakeholders in the definition and implementation of large framework projects). To do that, specific strategic design capabilities are needed to recognize the existing resources and best practices, evaluate on-going influential trends, involve the stakeholders and facilitate their convergence toward shared visions and common decisions on what to do and how. In parallel, when local projects start to take shape, design experts must collaborate in synergizing them and coordinating them with other on-going and/or future programs. Finally, but most importantly, the overall project and each one of the local ones must be effectively communicated to those involved (and potentially involved) and towards a larger audience, which must be made aware of what the overall project will doand what it is doing step by step (Jegou, Manzini, 2008; Jegou 2010).

Open Design Program

The previous examples are significant because they demonstrate how some schools have become agents of (sustainable) change. At the same time, they show the possibilities connected to this way of working and the potential implicit in a diffused network of similar Labs in several Design Schools. To advance such an approach calls for the development of a far-reaching design and research program. (Manzini, 2009).

To be effective, such a program should be unique in its concept and realization: a *design program* based on a peer-to-peer approach, including design schools from all over the world. The program should be both open and collaborative, and capable of self-regulation and self-management. We can name it *Open Design Program.*

The expression *Open Design Program* refers to a program of (didactic and research) initiatives where several design teams are challenged by significant and complex problems and collaborate to produce shared visions and viable solutions. This requires an appropriate communication and organisation platform. It must enable the Design Labs to operate adopting open source and peer-to-peer approaches to exchange experiences, mutually evaluate their projects and, finally, collaborate in large programs.

The *Open Design Program* we are proposing here is characterized by these features and has three primary goals: (1) to define a shared framework for a multiplicity of research activities on design and sustainability; (2) to create a forum for ongoing discussion and outline design and research streams on well defined *crucial issues and emerging scenarios*; (3) to foster new autonomous research programs.

The Design Labs who join this Program agree to orient their on-going activities, or start new ones, in such a way that they can tackle these crucial issues and enrich these emerging scenarios. In doing this, these Labs offer their contribution to the realization of an articulated set of visions and proposals (as well as the definition of design tools necessary to better understand and implement them).
At the same time, the Program operates as a platform enabling each Design Lab to recognize emerging demands, exchange experiences with those working on similar topics, and have greater access to design tools and concepts developed and tested in other projects.

Distributed Design Agency

To enhance the Open Design Program, each Design Lab develops projects and research on the basis of its own resources and opportunities, but also acts as a node within a larger network of similar Labs. What results is a Design Lab Network which operates as an innovative *design agency*: both as an *open* agency (Mulgan, Steinberg, Salem, 2005), where complex, socially significant topics can be tackled, scenarios developed, and solutions offered as contributions to larger innovation and co-design processes and as a *distributed* agency (Brigs, Ryan, Wisman, 2010), where many design teams work in parallel, are connected to each other and can function as a larger entity, while remaining sensitive to particular local cultural, social, and economic conditions. Given its particular system architecture this Design Labs Network offers the very unique possibility to integrate local and global points of view and to promote open design programs where a variety of projects converge, tackling complex problems and generating scenarios and solutions.

In other words, the Design Lab Network is, per se, a kind of social innovation where, as we wrote at the beginning, the existing (but under-valued) social resource of students' enthusiasm and teachers' experience is catalyzed and realized to generate a Distributed Design Agency where scenarios and solutions, conceptual frameworks and practical tools are generated and offered as a free and open contribution to the on-going co-designing processes towards sustainability.

It must also be emphasized that this Distributed Design Agency is primarily and most importantly an *independent design agency*: one based in design schools and which can operate with greater degrees of freedom than commercial design agencies. We believe that the freedom to search for unconventional, critical, alternatives is the major strength of the Design Labs Network and Open Design Program.

In acting as independent agents of change, design schools are doing precisely what they should do: operate as free cultural entities capable of using that freedom to promote social good, even when this contradicts mainstream models.

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