NETWORKS OF DESIGN: CRITICAL AND SOCIAL CONNECTIONS BETWEEN PROJECT AND SELF-PRODUCTION

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ABSTRACT

Contemporary post-industrial development has changed the organization of labour in every sector, shifting towards flexible and collaborative networks of knowledge able to deal with issues such as decentralization, coordination and participation.
The topic of the paper is related to recent interest in the fields of design, technology and the social sciences in the 'networks' that inform knowledge development and creativity in design. Since internet and the knowledge society raised, the concept of network stands for a different scheme of organization out of hierarchical structures towards more horizontal geometries which can develop and spread forms of collaborative creativity. While it seems over the image of the designer/artist which works alone in his office while creating unique masterpieces, design happens to be highly affected by networking.
New technologies and their accessibility are shaping a society where 'everybody design', while enabling new critical experiences of participation and also activism: the contribution will focus the scenarios concerning the new roles of designer facing society and its organisational structure through networks, while experimenting on self-production. Here, design can play a new role as an intelligent actor in complex networks, not just giving solutions with a top-down approach, moreover spreading and developing tools for collaboration.

Keywords: Knowledge Society; Self-Production; Self-Brand; creative cognitariat; technological activism; digital democratization; post-fordism; social innovation; new technologies; participation; design as facilitator; empowerment.

1 INTRODUCTION: New Forms of Labour after the Assembly Line

Computer has changed the way we organize for working and living in any social sector. The historical epistemological shift from the fordist-taylorist paradigm of mass production into the post-industrial development draws a new economic and productive geography: as the industry of the chain assembly leaves space to new and more flexible forms of labour, a net of connected hubs delocalizes and autonomizes manufacturing activities.
Collaborative networking in our knowledge society has opened to a great social and cultural shift revolutionizing the way we work through new collaborative approaches which highly affect our organisational models in every field. So, collaborative networks, from local to global, are the only capable to organise very complex projects while gathering large numbers of people and interests giving platforms for actions through open source and peer-to-peer forms.
While the development of property and of the material goods used in production and industry lay at the heart of modern capitalism, the so-called post-industrial era invests in the immaterial assets of knowledge and in the capability to coordinate together large networks. Physical labour in factories has been replaced by dispersed labour of the mind, which is now considered to be the primary workforce capable of generating value.
Automation through information technology is devaluating all the tasks connected with the cycles of the machine and the *routinaire* actions as they can be codified and programmed by the machines themselves. Therefore, the assembly line, taken into account as production and organizational paradigm, is becoming a sort of industrial archaeology. Information technology replace the labour which can be codified with a programmed sequence, while promoting those connective skills capable of analysis, choice and programming in real time which only human intelligence can develop.

At the same time, a new form of organization of labour comes forward after the notion of salary and social classes of the industrial era, opening to new forms of individualization and decentralization which must be coordinated through interactive nets in real time, among far continents as well among different floors of the same building. As in the forms of Tayloristic work organisation, the activities were scientifically segmented in order to optimise output, in the economy of knowledge the design and execution phases are reassembled through forms of internal co-operation and communication, provoking the emergence of the most creative and innovative components. This historic move can be seen in every productive sector, affecting at the same time the anthropology of the young designer, or of any 'creative person'.

2 NO MORE LONELY HEROES

While the designer seems to have shrugged off the role of a positive hero who creates unique shapes for the salvation of society, broad demand has emerged for projects serving the economy, experience and services, composed primarily of immaterial factors and creativity. This may also explain why the concept of project is now often being replaced by the concept of creativity itself, which opens the field to new dynamics and goals. In fact, we have moved from a culture of the project, in other words the organized study of the possibilities for implementing an idea with the tools and resources available, to scattered, precise forms of creativity which involve inventiveness and the capacity for innovation being used in experimentation or for resolving specific situations, rather than taking on a meta-universal utopian dimension for definitive solutions, or planning complete macrosystems.

Because the social role of the designer and of design itself as a social phenomenon have been revised, huge numbers of professionals are appearing in every sector and on every level of production. However, this situation also makes the profession relatively precarious and makes it structurally difficult for designers to stand out, so they often end up filling out the ranks of a submerged informal economy.

The communication factor covers a central role, confirmed by the fact that the young generation of designers are happy to appear with their creations than their grandparents. The products of Fordist industry were often anonymous, almost as if the design were put together by the manufacturers that assembled the goods and the society that would consume them, whereas the creations of these young newcomers are distinguished by high levels of participation. They almost seem as if they are manufactured by the designers themselves, who become true marketing tools. And the name often becomes more important than the design itself.

This generation of designers has seen and come to terms with deindustrialization and the rise of the service sector. While their predecessors had a role in the assembly line that brought them into close contact with manufacturing processes and provided them with objectives and stimuli, today's designers are aware of their service and strategic role concerning innovation.

Design itself becomes a service, rather than being considered a concrete object related to the production of 'physical' things. These are more or less intangible activities, located somewhere between 'doing' and 'knowing'. They help resolve specific problems in a collaborative network of players where every segment helps to determine the end result. More than material solidity, the human factor's qualification in providing the service attests to the performance and the level of satisfaction in consumption.

The goal of Design cannot anymore be considered as just limited to the production of new products, but it has become globally an activity producing permanent strategies of innovation (aesthetic, functional, technological or commercial). Innovation is vital for every productive sector, not only for furniture, in order to answer to international competition and new markets. Thus, contemporary design acts producing a sort of dynamic energy not just for ultimate products (as Industrial Design did during the 20th century), but for reversible strategies, dynamic processes, communication and information, services and promotion, real and virtual products, mass production and experimental researches.

Innovation is the keyword which design and production has to look at in order to face contemporary challenges of global competition and market changes while creating always new solutions. Design turns to be a field without a given configuration because the reference points and the strategies of enquiry steadily evolve through new paradigms to be explored.

3 THE DEMOCRATISATION OF THE CREATIVE PROFESSION

The spread of new technologies and software's relative ease of use have allowed an exceptional stream of young designers to develop and grow on a global scale. This phenomenon is mirrored by the exponential increase throughout the world in the number of schools with this philosophy – be they state-run or private, university departments or specialist colleges. They introduce this new group of people, which has now reached critical mass, to techniques, technologies, approaches and processes which will let them become part of the international creative research community. While on the one hand this phenomenon further reinforces the independence of the design discipline, on the other it breaks up and completely disperses its skills. Likewise, the educational offering has expanded and become increasingly varied, and students now learn to navigate a global network, from New Delhi to San Paulo, from London to Hong Kong, through educational programs that are much more complex and heterogeneous than before, in terms of their duration, degrees and specialisations.

With the democratisation of design tools and production technologies, design is no longer an elitist profession; rather it has become a 'mass profession' which is expressed through process management rather than products. The mass entrance of a significant number of young people into the creative professions is changing the authorial aura of the professional role and the act of creation itself, taking away its elite status. While in the past there were a limited number of greats, universally renowned names who created masterpieces that would take a permanent place in the annals of design and who were able to instil continuity in their output – so much so that they were seen as the founders of schools of followers – with its widespread creativity, the young design generations seems to be characterized by a large number of minor figures connecting and disconnecting each other into groups. These lesser names do not appear to be able to offer much more than a short, though often intense, period of productivity. The brief duration of individual careers brings to mind today's fleeting video clips. These brightly burning but short-lived stars are accompanied by high-speed electronic communication and geographical distribution on an international scale.

The digitalisation process pervades every segment of professional activity; it determines times and resources, and thereby reduces the entire design process to producing and processing data that has been re-elaborated by the knowledge and creativity that are put into play. The computer becomes the ultimate tool, and unlike instruments requiring innate specialised skills and abilities (like the ability to draw by hand), today's user-friendly software opens up the field to a vast, totally new group of young people who would not have had access to design earlier. In this way, the rate at which software is updated measures how quickly innovations are made to products, and design training becomes permanent education and learning how to use updated technologies, thereby constantly redefining the rules of the game.

4 DESIGN CONNECTIVITY

In order to increase the value of their own cognitive 'fixed assets', as André Gorz would call them (Gorz, 2003), creative people need to continually update and reinvest their knowledge through constant training, in their daily grind producing and managing themselves and their ideas, knowledge and techniques through informational flows. The continuous mobilisation of this live workforce through constant creative effort — even when off the job, they form and transform their knowledge and abilities — invades every moment of the day, erasing the line between the time devoted to work and the time for leisure. Everything in designers' daily lives — relationships, affective and emotional aspects, language and the ability to co-operate and being connected — is used as an investment to produce value.

The notion of network is related with the idea of connection. Since internet and the knowledge society raised, the concept of network stands for a different scheme of organization out of hierarchical structures towards more horizontal models which can develop and spread forms of collaborative creativity.

A network, in Bruno Latour's view, involves a set of negotiations in which both human and non-human actors assume identities according to prevailing strategies of interaction: therefore, networks of design is about processes and organization (designing, producing, consuming). Networking is overall an approach including openness, inclusivity, intelligence, evolution, innovation, sociality, creativity, development, all issues which arouses collaborative and inter-connected approaches to design, opposed to hierarchical, for infrastructuring spread knowledge and creativity.

Along with the issue of self-production, self-brand, prosumerism and democratization of the project, the concept of networking has reached a special role for design process: it is essential for designers working in a post-industrial society to understand, and at the same time, to be connected to the proliferating global networks, so that they can develop new forms of work and collaboration, and reach all those places in the world where research and innovation are moving in the direction of new scenarios for design. In this way, new self-organisation abilities can be discovered to be experimented along with self-branding, thereby revealing a spontaneous and alternative space running alongside and often overlapping official production and expanding their design powers.
The parallel universe of communication affects young designers' behaviour in the way that it no longer matters where you are, but only that you can communicate with the rest of the world at any time, and that you can be completely mobile. But the energy crisis might already be changing this: whereas we used to happily travel around the world constantly, now unfortunately the dream of dematerialising the designer's person and body has to change.
If physical mobility will probably suffer a slowdown, at the same time digital and social networking is growing through design multiplying the platforms for debate and the communities of professionals spread across the planet. There's a sort of "cloud computing" around design and we have to sharpen our critical capacities, in order to decide where we should be spending our time and energy between those blogs we should read and who the messengers or Google readers are. Perfectly in-line with the Web 2.0 concept, networks give a voice to everyone, but at the same time change so quickly it is hard to keep up and make it difficult to learn who to listen to.

5 CREATIVE CITIES INFRASTRUCTURING KNOWLEDGE

The post-industrial development draws a new economic and productive geography as a net of horizontal connected hubs without a real centre, while delocalizing and autonomizing the activities: the new and flexible forms of labour allows production to untie and decentralise itself from territory, redefining the binary paradigms of centre-periphery or north-south.
Thus, the anthropology of young designers creates a 'creative proletariat' layer, or to use a lively neologism, a 'creative cognitariat' (a cognitive proletariat of creativity) primarily through the imposition of new technologies. In satisfying broad aesthetic demands, the 'creative cognitariat' is pushed to reinvent its own role every day, generating new products and services, as well as new markets and consumption models. The emergence of this new figure with a bent for mobility and innovation is spreading in global cultural metropolises a bit like our 19th-century ancestors on the assembly lines created the factory's *cité industrielle* - although with a number of differences.
For strategic reasons, the ascent of the creative class, as Richard Florida foretold, is located in cities of culture, for there alone can it compete on the international stage through energies, human resources, collective intelligence and infrastructures, networks and become agent of development. The metropolis of communication seems to be a genuine workshop of innovation and creativity, offering every opportunity for meeting others and the tools to enhance and promote understanding, at the same time underlining the global and cultural dimension of the experiences which are made possible. Only there can creative youth find that fertile soil of industry, finance, technologies, education, publishing, as well as social relations and exchanges which positively fertilise their work, and provide opportunities for recognition and innovation alike.

6 EVERYONE DESIGNS IN THE KNOWLEDGE SOCIETY

'Everyone designs' in the knowledge society. However, although the computer has indeed become the productive tool par excellence, its accessibility brings once again the worker and the product closer together, opening up new design experiences and new economies.
While networking gives the chance for an horizontal connectivity, while releasing open forms of organization, the diffusion of technology, which is nowadays spread and as a result is connected with the riappropriation of means of production, as software and hardware, enable the development of new forms of knowledge while affirming practices of activism able to multiply the critical areas of reflection and mobilizing subjectivities.

This *homo flexibilis* of design is often his own entrepreneur, building new biographical and above all productive scenarios by experimenting with forms of self-production beyond immediate marketability. If we add information technologies and the advance of rapid prototyping and relative accessibility, the designer can close the production circle all on his own for the first time, autonomously doing everything from design, to production, to distribution, all the way to communication and sales. The young designer has now learned to take advantage of his ability to autonomously and collaboratively connect to the Net with his peers, so he independently incorporates all productive aspects in his own office and can use his name as a real brand. In this way, the design office becomes a design management office, the prototyping lab becomes a small factory producing small runs, and Internet portals and e-commerce take over the responsibilities of the distribution agent. The designer can handle all aspects related to communication by designing the packaging and devising the corporate identity. And he can cover all the strategic aspects for product marketing, by setting up of sales points and even doing the selling, as is often seen when designers take the opportunity to promote themselves at international design fairs.
"The division between workers and their reificated work, and between this and its product, is therefore virtually abolished, since the means of production become appropriable and subject to be made in common. The computer seems to be as an universal tool, universally accessible, through which the entire knowledge and every activity can be in common." (Gorz, 2003)
Therefore, the acquisition of capabilities of self-organization asserts a form of technological activism which can multiply the resources for enterprise and cooperation, while diffusing power of design allowing the production of critical zones and the creation of collective/connective intelligences. The technological activism, while invisibly giving a new direction to production through practices of critical consumption, moreover of cultural hackerism, or semiotic sabotage, develops a creative role in shading any clear distinction between the stages and the subjects of project, production and consumption. The creative cognitariat discovers active areas for interpretation and contamination from the spaces and the objects of everyday life, which should be taken into account not just as practices of micro-resistance nor as forms of inertia, but as forms of autonomy able to mobilize unexpected resources for innovation, to elaborate signals and generate spread logics, as well often activating evasions from traditional habits.
Who is the designer and who is the producers in the knowledge society?

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