

## Design in a changing, connected world<sup>1</sup>

### Design em um mundo conectado e em transformação

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One of the most obvious things people can do today is talk about change. Although it is an overused expression, we cannot escape from it. The change I am talking about here is driven by two main forces: the spread of higher levels of connectivity and the growing evidence of the limits of the Planet. Both these drivers of change impact on every aspect of our societies, from the way we produce, to the one we live our everyday life, to the one the same societies are managed. In this dynamic environment design is obviously changing too.

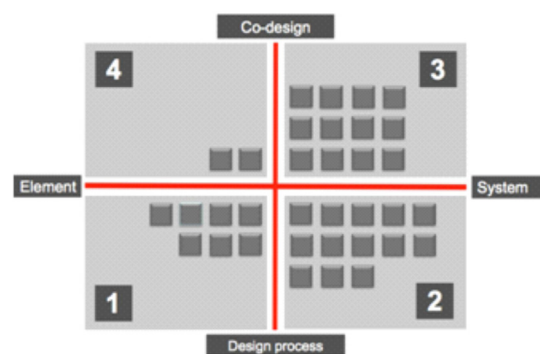
When, several years ago, I started to deal with design, there was only a small group of people talking about it and its role in conceiving and developing industrial products. Now, many people discuss design and most frequently adopt a design approach in facing very diverse problems in equally diverse fields. At the same time, as it always happens when a word is successful, the discussion about it presents several ambiguities and misunderstandings. Considering that, with this presentation I intend to propose some reflections on contemporary design: what it is and what its theory and the practice is becoming.

#### Emerging design: what and how

To start this discussion let me share with you an experience that I did in Cape Town during the 2014 World Design Capital (WDC). WDC is a big event endorsed by ICSID (The International Council of Societies of Industrial Design) in different places, every two years, to promote the idea of design and its possibilities. For the sake of what I would like to deal with here, we can compare this WDC in Cape Town with the 2008 edition in Torino. If you had browsed the Torino program you would have seen a lot of projects and events mainly related to what normally people think design does and how it does it. The 2008 event was characterized by projects in which some design agencies were presenting “products”: they could have been cars, washing machines, lamps, or brands. Today, if you browse the WDC 2014 website (<http://www.wdccapecetown2014.com>), you

will find 460 projects presenting diverse typologies of activities and results. Moving from this observation we, a colleague of mine and I, did a fast and rough research on their main characters (we did it on sample of 34 projects that had been chosen to be exhibited as representative of the whole WDC in Cape Town). In order to make the discussion of its results easier, we built a matrix using two axis: the first one, the “What” axis, indicates the project outputs, from individual *entities* (industrial and craft products, buildings, graphic projects) to *systems* (complex, hybrid artifacts as services or organizations). The second axis, the “How” one, is related to the processes, from *design process* (involving designers in a traditional way), to co-design process (emerging from the interactions of different actors, final users included). The resulting matrix (Figure 1) can be defined as the What/How Design Map and it gives an idea on the project nature in terms of outputs and process.

Using this matrix to map the WDC projects sample (Figure 1) we found that the majority of them were oriented towards the realization of what we previously defined as “system”. And that, many of them, had got this result through some forms of co-design process. In my view this



**Figure 1.** What/How Design Map, applied to a selection of WDC14 projects.

<sup>1</sup> The paper was originally presented at the 11<sup>th</sup> P&D Design, organized by the Graduate Programs of Universidade Federal do Rio Grande do Sul, Uniritter and Unisinos University, and held at Gramado (RS, Brazil), September 29 – October 2, 2014. The paper largely refers to the book *Design when everybody designs. An introduction to design for social innovation* (Manzini, 2015).

distribution on the map as quite meaningful: it tells us that, launching a call for projects in the framework of an initiative as the WDC, the majority of the resulting applications appear to have moved from the quadrant 1, where design activities have been traditionally expected to be, to the quadrants 2 and 3. That is, towards an area where the artefacts to be designed and modalities to do so are to be considered as highly innovative.

How can we explain that? There could be several explanations: it could depend on the call (that was quite open in defining what an admissible project could have been). Or: it could depend on the highly problematic South African context (which pushed the projects towards the search for systemic social solutions). For me, both these motivations could be correct. Nevertheless, I think there could also be a third explanation: it could simply depend on the fact that, today, the practice of design is already very far from what traditionally it has been meant for it. I think that this last motivation is the most meaningful one. And that, in some ways, it also includes the other two.

It is obvious that, since the WDC was in Cape Town, the projects present some strong local peculiarities. Nevertheless, it has to be recalled that that projects were the result of a call that was not dedicated to design for social issues, nor for service or systems. This was a call of the World Design Capital, promoted by ICSID, which is the official organization of industrial designers. Therefore, we must assume that these projects tell us what today is the practice of design. At least in Cape Town.

Of course, in them there is something that is specifically South African. Nevertheless, exactly for that, their meaning is larger than what in the past we could have thought. In fact, looking to the future, we can easily foresee that design will be closer to what we are observing in South Africa than what has happened in Europe until now. In fact, Europe is becoming a small island. In the larger world, the general conditions are more similar to the South African than the European one.

To better explain what I mean, let's consider a specific but highly relevant point.

We must recognize that shacks and slums, as the ones we find in several South African projects, do not represent marginal living conditions: they are where a large and growing part of the people (in Cape Town, and in the Planet) is living and, most probably, will live for a long period in the future. Therefore, looking at them and working for/with them is not the expression of a particular "social design" (resulting from a designers' particularly high social concern). It is the result of the very obvious observation that these settlements are not exceptions to what should be a city: they are *the* city (or, at least, a meaningful part of it). And, therefore, they represent one of the "normal contexts" where design should work and, most probably, in the future, will work.

Going back to our main theme, it comes that the design on-going evolution is showing a trajectory going from the 20<sup>th</sup> century design, oriented towards European and North American middle-classes, and based on the industry of that time, towards a system-oriented design, participating to larger co-design processes in the very different contexts in which people is living, and will live in the future.

Here, I will call this kind of system-oriented, human-centered, collaborative design as the *emerging design*: a design practice that, even though it is not yet mainstream, in my view, will become the XXI century design.

Of course, this does not mean that, considering the What/How Design Map introduced before, all the design activities should be in the co-design/systems quadrant. It simply means that they will be the most diffuse way in which design activity will appear. The problem for the design community (intended here as the community of design experts) is to be capable of recognizing and possibly of leading this transformation. And this, at the moment, is not obvious because the change to be done is big: emerging design theory, and the skill and culture it requires are quite far from the ones design experts of the XX Century normally had.

To contribute to better understand the emerging design nature, and what design experts do in it, let's now move from the "what" and "how" of design to its "who" and "why".

### Who designs?

Who designs? Who are the designers? To answer these questions we can start from the classical Herbert Simon (1969) definition: "everybody designs who devises courses of action aimed at changing existing situations into preferred ones". This one, of course, is a very wide definition of who the "designers" are. And therefore, in different contexts, it can include designers with very different profiles.

To better understand its implications, let's start from the very basic consideration. In the Simon's definition, everybody can be a designer. Design results in fact as human capability: a mixture of critical sense, creativity and practical sense that allows us to recognize what in an existing situation we don't like, how instead things should be and how, practically, to transform them (to move towards the preferred direction).

It must also be added that to use these capabilities, i.e., acting in the *design modality*, asks for energy, attention and time. In short: it is for sure a very human activity, but it is also a quite demanding one. Therefore, we try to adopt it only when we feel that it is really necessary. In the other cases, we tend to adopt another approach: the *conventional modality*, that simply means to do as it has always been done (as long as this way of doing seems to work well).

It happens that, in some periods in time, the (technical, social and the cultural) contexts are stable, or change very slowly, and people can repeat what they had always done (and/or change only incrementally and often unconsciously). That is, in these periods, people standard behavior is to adopt the conventional modality. In other periods, when things change fast, conventional modality does not work anymore and people must shift from the conventional to the design modality. In Europe, this transformation in the balance between these two modalities started centuries ago, accelerated at the beginning of the XX Century, with the spread techno-science results in people's daily life and now, a century later, the design modality is becoming the main one for a growing number of people, in Europe and worldwide.

Let's try to make the last statement clearer: there are some sociologists who say that modern societies are the ones in which people, willing or not, design their own biography. In fact, in pre-modern society, people's choices were largely defined by their context: given the place and time in which it happened them to live, they had little to choose in relation to how to orient their lives. That is, they had a very small range of personal freedom. On the contrary, with modernity, the people individualization goes together with the need to make choices: from the small ones (what and how to eat or to dress) to the big ones (where to live and what to do, who to marry, when and how to have children and, in many places, when and how to die). All these choices ask to use people's capability to make reflexive choices, which is to design. It comes that, with modernity, everyday life is less and less based on the conventional modality and more and more on the design one.

The extensive use of design modality is not only for individual subjects (i.e., people in their everyday life, as we have seen in the previous paragraph). It is becoming dominant in all human activity, and for every kind of "subject," whether individual or collective. This means that, in a highly connected world organizations too (from businesses to public bodies and associations, from cities to regions and nations) are driven to present themselves and operate in the design modality. In fact, today businesses, public administrations, associations, but also cities and regions must behave as *collective subjects* and define, or continuously redefine, their own identity, developing adequate strategies regarding the meaning of what they do. At the same time, considering that they have to deal with increasingly complex problems (ranging from environmental transitions to the effects of globalization, from aging populations to multiculturalism), they must develop strategies to face them and to build the coalitions needed to solve them. Putting these two design necessities together, we can say that all organizations (whether public or private) are becoming *design-driven*: organizations whose programs are guided by design (a way of doing things that, until recently, was practiced only by a limited number of companies in well-defined commodity sectors, such as fashion and furnishing).

It must be added that, as anticipated, the design modality can be highly demanding, difficult and, very often, frustrating. In fact, on one side, the turbulent context pushes individual and collective subjects to adopt a design approach. On the other side, it happens that, for several reasons, they may have difficulties in applying it and reaching satisfying results. It comes that, to reduce frustration and to increase the degree of successful design initiatives, it is important and useful to create contexts capable of empowering these diffuse design capabilities... and here, of course, the design experts' role comes to play.

*Design experts* are people trained to operate professionally as designers, and who put themselves forward as design professionals. Therefore, design experts are subjects endowed with specific knowledge permitting them to operate in the design processes in a competent way. That is, using a set of *tools* and, most importantly, a specific *design culture*. Where tools help the experts to understand the state of things and support the co-design processes and the design culture is what is needed to feed both a crit-

ical sense (of the current state of things) and a constructive attitude (proposing values and visions with which to feed the social conversation on what to do and how).

Given all this, we can outline a new design experts' role definition: design experts must use their specific skills and culture to catalyse social resources, promote and support co-design processes and enable participants to better use their diffuse design capabilities.

## Why to design?

Let's now move to a second set of questions: why do we design? What are our motivations? In the past ten years, the main motivation, especially for what *emerging design* has been concerned, was: we design to solve problems. That is, design has been mainly seen in its potentiality as a *problem solver*. This is correct. But, in my view, design is not only that. Design can also create meanings. That is, operate as a *sense maker*.

It must be observed that problem solving and sense making are the two sides of the same coin: you cannot have the one without the other. If sometimes it could be useful to separate the two sides it is only because there are moments and places in which the main interest is to solve problems, and others in which it is to generate meanings. As a matter of fact, in time, the design discourse focus moved as a pendulum: in certain moments it has been on the problem solving side, where, in other, it has been on the sense making one. For instance, if we go back to the Bauhaus, i.e., to the beginning of the past century, we can observe that, in that moment, new materials and machines were already there. What was missing was a new system of meaning: the narrative needed to make industrial products (i.e., the products industry of the time had the capability to realize) acceptable by the urban dwellers of the new industrial towns. That is, to give these products functions and meanings in the perspective of a better way of living. Therefore, what Bauhaus, and many others after it, did was to build a vision: the vision of modernity in everyday life.

I like this Bauhaus example because, the way I see it, it makes clear that the issues of meanings, values and aesthetics are not a marginal, superficial side of the design work. And vice versa: it is the main component of it. As the Bauhaus example shows, a new narrative was needed to spread in everyday life what industry had the potentiality to produce. And, beyond this narrative (i.e., these stories made up by images, proposals and scenarios), an ethical background was need too. Bauhaus, in collaboration with others, created it: an ethic of modernity that, for what everyday life was concerned, proposed the revolutionary idea of a wellbeing based on the democratizing production and consumption. That is, the possibility to offer to all performances that before had been accessible only to small elites.

It comes that, at the beginning of the past century, the design experts' ethical mandate was to conceive and develop good, effective, cheap, and, therefore, largely accessible products and services.

The discussion of this ethical principle and its evolution in time goes beyond limits of this presentation. But, let me make only few notes on it. This product-based wellbeing idea has been very convincing and, in many ways,

successful. At least at the beginning. The problem is that the idea of improving the quality of life democratizing the access to products could have been thinkable one century ago, when it was to be adopted by a few hundreds of millions of people, and when the limits of the Planet were not yet tangible in everyday life. Now, everything is changed. On one side, there are several billions of people looking in the same direction, hoping to improve the quality of their life achieving the same product-based wellbeing. On the other side, today the limits of the Planet have become visible and tangible also in the daily life. The result is that it appears clearer and clearer that dream of product-based wellbeing is turning itself into a nightmare. First of all, because this idea induces a growing environmental footprint that, in turn, is generating the environmental disaster that we are now facing. But this one is not the only motivation. In fact, it is becoming evident that quality of life requires far more than products. It requires *common and relational goods* as lively relationships, healthy environments, safe neighborhoods, trusty institutions,... Therefore: if the ethical motivations we had one century ago do not work anymore, which ones should substitute them? Here, I will leave this question open and go back to this presentation core theme.

### The Who/Why Map

When discussing about design modality I introduced the polarity between *diffuse design* (design as human capability) and *design expert* (design as specific skill and culture). Then, when discussing about design motivations, I introduced the polarity between *problem-solving* and *sense-making*. Now, considering these polarities as axis and crossing them a new matrix appears: this is the Who/Why Map (Figure 2): a map that tells us who is designing and what their main motivations are.

In the expert design/sense-making quadrant (up-right) we find the most traditional design: *the design and communication agency* which has been at the center of what has been considered design: a professional, mainly related to the sense-making, design activity.

The expert design/problem-solving quadrant (up-left) is where we find a different kind of design agency: the *design and technology agency*, strongly oriented towards problem-solving, which, beyond traditional designers, includes a mix of different competences.

In the diffuse design/sense-making design (down-right) there is a growing number of *cultural activists* (producing movies, music, theatre and, recently, social media contents) who design opportunities to realize their works and make them visible (such as festivals, exhibition, cultural centers).

Finally, in the diffuse design/problem-solving quadrant (down-left) we have different kinds of grassroots organizations. These groups, facing complex social issues, normally act as problem solvers and, frequently, are capable of imagining and realizing innovative solutions.

Given this map, it must be added that, in the age of networks everything is connected, and the clear cut quadrant contents I just described tend to blur, with growing areas in which different activities converge and new *design cultures* appear (Figure 3). Here I will outline three of them, which seem to me very promising.

**Design as place maker.** Various design experts, from both the problem-solving and the sense-making sides, are converging in a central area of the map to develop projects at local or regional scale. They are aiming at regenerating "the local" by creating a new ecology of places: an ecosystem in which local culture and production are able to live and regenerate in a balanced relationship between local and global.

In this area of the map, design experts meet and collaborate with institutions and associations, using their expert design capacities to develop local and regional projects. These include: creating services in the informal or marginal settlements of the new metropolises; redefining relations between city and countryside; creating social services rooted in neighbourhoods and communities; setting up local and regional alternative mobility systems.

**Design as activism.** Cultural activists, grassroots organizations, and design activists are converging toward a range of initiatives whose purpose is not to offer immediate solutions to problems, but to spark interest in these areas and show, often paradoxically or provocatively, that there are different ways of seeing and resolving them. For instance: raising awareness on the question of public green space, affirming the rights of cyclists by organizing cycle rallies in city traffic, re-acquisitioning public spaces by organizing festivals, setting up and managing a self-run social centres, or creating special events. All of them are activities that require out-of-the-ordinary designing and strategic skills to be conceived, to realize the events, and to determine who to join forces with.

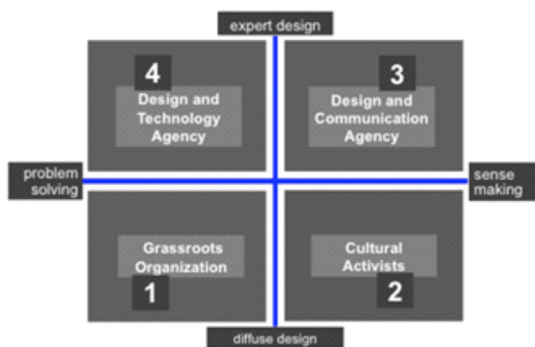


Figure 2. Who/Why Design Map.

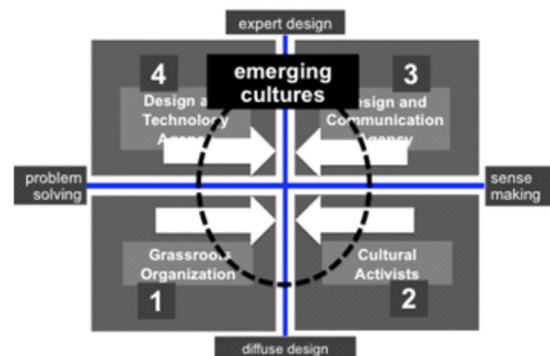


Figure 3. Emerging cultures in Who/Why Design Map.

**Design as making.** An interesting line of evolution for the expert design mode is toward the diffusion of microenterprises based on the notions of open design and distributed production: a design mode where design experts are, at the same time, designers, makers, and entrepreneurs.

Seen in this broad perspective, we can say that this emerging design culture is the one that most radically calls into question the tradition of product design. By experimenting with the possibility of rethinking the entire production system, it offers the opportunity of redesigning all material products by answering one simple question: what would they be like if they were entirely or for the most part produced for well-defined clients and as near as possible the place where they will be used?

### Co-design processes and design culture

To conclude, let's go back to a very basic consideration: *in the networks all design is co-design*. It means that, in a highly connected society designing actors cannot escape from interacting and influencing each other. Therefore, being influenced by different actors every design process is, de-facto, a co-design activity. That is, a complex, contradictory, antagonistic process in which different stakeholders, design experts included, participate in different ways, bring their specific skills and their culture. In other terms, co-design, as I intend here, are social conver-

sations in which everybody is allowed to bring ideas and take action, even though these ideas and actions could, at times, generate problems and tensions.

Therefore, a co-design process is not a space in which everybody agrees and speaks the same language. It is a process in which different people with different ideas and languages interact and, sometime, converge towards common results. In turn, these results, exactly because they emerge from a dialogue among different ideas, can be particularly interesting, resilient and rich in cultural qualities.

Having recognized that, it comes that the design experts' role is also, and mainly, to bring original ideas into the conversation, to do it in the most appropriate way, and, in order to be able to do it, to cultivate these ideas. That is, to cultivate their specific design culture.

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