

Design, ethics and sustainability

Guidelines for a transition phase

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Act so that the effects of your action are compatible with the permanence of genuine human life

Hans Jonas

Expand the 'capabilities' of people to lead the kind of lives they value - and have reason to value

Amartya Sen

"Design is a creative activity whose aim is to establish the multi-faceted qualities of objects, processes, services and their systems in whole life-cycles"¹ (ICSID 2005). A creative activity that is also the reflective one of choosing between different possibilities. The openness of the field of possibilities where designers are operating is one of the factors that characterises their actions. When there is no room for choice, because the solution is dictated by strong social conventions² and/or technological constraints, there is no design. Given this degree of freedom, designers have to adopt some criteria for choice and on this basis choose what, in their view, is better to do. That is, given that ethics is defined as dealing with "what is good and bad, right and wrong"³, they have to make ethical choices.

To discuss design and ethics, as I will do here, we have to consider what the criteria of choice are that, consciously or not, designers have been using until now.

But before considering designers' subjective ethical motivations, let's look at the objective consequences of their actions. In fact, if we assume the notion of "ethics of responsibility", as introduced by Max Weber and more recently re-proposed and elaborated by Hans Jonas (Jonas 1979), what has to be considered as ethically relevant are not only the intentions behind a given action but also its implications and results⁴.

¹ This design definition (ICSID 2005) is official in that ICSID is the most authoritative international design organisation. It is also particularly relevant to current debate in that, unlike previous definitions, it includes within the scope of design not only products, but also processes and services. In addition, by advancing the idea that design considers products together with "their systems in whole life-cycles", it makes significant reference to issues raised by the environmental question. However, although advanced, the definition proposed by ICSID still reflects design history and its traditional, privileged relationship with the manufacturing industry of last century and, more generally, with a heavily product-orientated production culture and idea of well-being. Today, in my view, it would be more appropriate to move away from this product-oriented definition to a more *solution-oriented one*. See for instance the concepts of product-service systems (Charter, Tischner, 2001; Manzini, Vezzoli 2002; Van Halen, Vezzoli., Wimmer, 2005) and Transformation design, introduced by the Design Council with the RED Paper 02 (Bruns, Cottam, Vanstone, Winhall, 2006).

² *Socio-technical conventions* are complex mixtures of implicit knowledge, customs and mores. They are a product of the slow co-evolution of technology and society (Hamburger, Thiebaut, 1983). The increasing speed of change generates discontinuity and break-down in conventional wisdom because what must be done, how and by whom, can no longer be taken for granted. It is when these conditions are reached that the demand for design emerges.

³ The *Encyclopaedia Britannica* gives the following definition of *ethics*: "The discipline concerned with what is morally good and bad, right and wrong"

⁴ Hans Jonas' studies are particularly important for us. In fact they are focused on social and ethical problems created by technology. Jonas insists that human survival depends on our efforts to care for our planet and its future. He formulated a new and distinctive supreme principle of morality, "Act so that the effects of your action are compatible with the permanence of genuine human life" (Jonas, 1979).

Assuming this point of view, when we look to the present conditions of our planet and the catastrophic nature of current major trends, we can ask ourselves what the responsibilities of design have been up to now. Unfortunately the answer is only too clear. In the last century, even when designers have been driven by the most positive intentions, considered as a whole, i.e. as the design community⁵, they have been active agents in oiling the wheels of a catastrophic machine or more precisely, active agents of an un-sustainable idea of well-being.

Consequently, the first step to take in our discussion is to better understand what went wrong and why, in spite of our good intentions, the idea of wellbeing that we contributed to promote and diffuse worldwide has had such catastrophic consequences.

Unworkable promises

The idea of wellbeing is a social construct: it takes shape over time according to a variety of factors. As industrial society unfolded, the combined development of science and technology offered a growing number of people a hitherto unknown possibility: of having at their fingertips products that were the materialisation of complex devices, which carried out cheaply service functions that were previously accessible only to the privileged few (from having clothes washed in the laundry, to having music played by a chamber orchestra during dinner). In addition, by making such products available in rising quantities at falling prices, the application of increasingly efficient industrial systems democratised access. It also painted a picture of the future in terms of an indefinite growth and diffusion of well-being or, to be more specific, of the well-being that these products would be able to bring.

The original strength of this idea of wellbeing lay in this promise of *democratisation of access to products* which reduce fatigue, leave more free time and extend the opportunities for individual choice - in short, which increase individual freedom. And, for what interests us here, this promise has also been the main ethical guideline to what designers should do in order to act "for the good and right", that is: *increase individual freedom and democracy of consumption designing effective, accessible, beautiful products*.

The crisis in this idea, which we can call *product-based wellbeing*, starts when it clearly appears that this promise of individual freedom and democracy of consumption not only has not been kept, but it cannot be kept either now or in the future because product-based wellbeing, extended on a worldwide scale, is proving to be an intrinsically unsustainable idea. More precisely: it is an idea that creates unsustainable expectations for a small, densely populated, highly interconnected Planet in which we wish to respect certain elementary principles of fairness. In fact, if all the inhabitants of the earth really sought this type of wellbeing in the same way (as is their sacrosanct right, since this is what others do and what is daily promised to them), there would be a huge catastrophe: an ecological one, if they succeeded and a social one if they didn't. Or, most probably, an explosive mixture of the two⁶.

At this point, let go back to the design and ethics issue. Conceiving and proposing products, services and lifestyles, designers play an important role and consequently have an equally important responsibility in generating social expectations in terms of wellbeing⁷. Given the evident un-sustainability of the ideas of

⁵ *Design community*: professional designers, design-related experts (such as: researchers, teachers, writers and cultural operators) and design-related organisations (such as: design agencies, research centres, schools, magazines, publishing companies, etc) considered as a whole. Sometimes simply referred to as "design".

⁶ The planet would be unable to support the weight of 6-8 billion people approaching western standards of consumption. Today, 20% of the population is consuming 80% of available resources. If this situation changes and the other 80% succeed in approaching western standards of living, we face the prospect of an ecological disaster. On the contrary, if they do not succeed, the perspective is one of social disaster because a highly interconnected and globalised society can not long bear a situation where 20%, or less, of the population has access to the promised wellbeing, while the remaining 80% is forced to look on with no real chance of taking part. A further catastrophic prospect, halfway between the first two, exists: a world in a state of both environmental and social crisis, where the number of "high impact" consumers increases at the same time as the number of those excluded. As we can all see, this third perspective today seems dramatically to be the most probable.

⁷ Of course designers have no means of imposing, for good or bad, their point of view on others. But they do have the tools to operate on the quality of things, and their acceptability, and therefore on the attraction of the scenarios of wellbeing they help to generate.

wellbeing that have been dominant until now, and that design as a whole collaborated to consolidate and diffuse, it is clear that the first ethical move that designers have to make is to find a new and (hopefully) sustainable idea of well being.

Sustainable wellbeing

Today we know that the transition towards a sustainable society will be a wide-ranging, long, and often contradictory social learning process. Its final results and the direction it will take are, by definition, unforeseeable. Nevertheless something is clear: in the near future, we will have to learn to live (and hopefully to live better, in the case of most of the inhabitants of this planet) consuming fewer environmental resources and improving the quality of our living contexts.

Confronted with the dominant idea of wellbeing (and with its strong link between wellbeing and consumption), the prospect of living well (or better) while consuming less clearly calls for a *radical change* in social expectations⁸ (and a *systemic discontinuity* in the production system). This is not the place for an exhaustive discussion on how radical changes and systemic discontinuities take place. I will simply state that the groundwork for macro-transformations and for great systemic changes is laid by *micro-transformations* and by *local systemic discontinuities*⁹, i.e. through the kind of changes in which design can play an important role. Of course, for designers, to act in this way, to trigger and support these changes is not an obligation. It is a choice, the ethical choice of promoting a sustainable wellbeing that, formulated as a first guideline to design *sustainable solutions* (Charter, Tischner, 2001; Manzini, Vezzoli 2002; Manzini, Jegou, 2003)¹⁰, could be proposed in this way:

> **Promote a sustainable wellbeing.**

To give this very general guideline a concrete possibility of implementation it has to be translated into more operative ones. I cannot do so here. However, some first indications can be given introducing three main *set of criteria* for solution sustainability: *consistency with the fundamental principles*, *low energy and material intensity* and *high regenerative potential*.

- *Consistency with the fundamental principles*. This set of criteria refer to the application to the solution design of the *ethical principles* relating to people and society (such as *justice within and between generations* and *international justice*) and to their relationship with nature and the environment (conservation of biodiversity, zero hazardous wastes, etc.). It is also linked to more complex social and economic questions such as the issue of *fair distribution* of wealth and power and to that of individual and collective *involvement*, of *community* empowerment and, in short, of reinforcing *democracy*. (Sachs, 1983, 1999; 2002; Shiva, 1989, 1993; Sen, 1999; 2004)

⁸ In more concrete terms: what is required of everybody is not only a little incremental improvement on what mainstream models of life propose. What is required is a drastic re-orientation of the idea of wellbeing. Ways of being and doing that are considered with indifference or even negatively in the currently dominant model, should be seen as positive: we need to re-discover the pleasure of moving on foot, of eating local fruit, of feeling the cycle of the seasons, of caring for things and places, of chatting with neighbours, of taking an active part in the life of the neighbourhood, of gazing at the sunset, and so on.

⁹ *Local radical discontinuities*: systemic changes with regard to a given context, in the sense that they challenge traditional ways of doing and introduce a new set of different (and intrinsically more sustainable) ones. Examples of interest here: organising advanced systems of sharing space and equipment in places where individual use normally prevails; recovering the quality of healthy biological foods in areas where it is considered normal to consume other types of produce; developing systems of participative services in localities where these services are usually provided to totally passive users, and so on.

¹⁰ In this paper, discussing about what to design, develop and deliver, instead of referring to products, services and communication, we will use the concept of *solution*. *Solution*: systems of tangible and intangible elements (such as product, services and communication, but also: infrastructures, legal frameworks and modes of governance and policy making) that, thanks to a specific action strategy, permits to get a given result. A *sustainable solution*, of course, is a solution the result of which, and the strategy to get it, are coherent with the criteria of sustainability.

- *Low material-energy intensity*: this is the most traditional set of criteria for sustainability, and it remains the fundamental one (Shmidt-Bleek, 1993; Fussler, James, 1996; Brezet, Hemel, 1997): whatever solution may be proposed, it must be highly eco-efficient (taking into account the overall life-cycle of the related artefacts).
- *High regenerative potential*: this is the set of criteria for sustainability that comes from the different but converging proposals by innovative thinkers on the concept of regenerative economy (Braungart, McDonough, 1998; Pauli, 1997; Sthael, 1999; Mont, 2002) : whatever solution may be proposed, it must act as a positive agent in the regeneration of context qualities.

Given these directional criteria, I think that it would be useful to discuss the implications of the first part of the proposed guideline, i.e. the assertion that designers should “promote wellbeing”: in which way can designers “promote” wellbeing?

Enabling solutions

We have just observed that the current mainstream idea of wellbeing arose with the enthusiastic discovery that artefacts could work for us like modern mechanised slaves. From here, and from the memory of frequent hardship in pre-mechanised daily life, came the idea of *wellbeing as minimisation of personal involvement*: the idea that when faced with a result to achieve, the best strategy was *always* the one which required the least physical effort, attention and time and consequently the least need for ability and skill.

This way of looking at wellbeing has progressively led to the conception and development of *disabling solutions*: systems of products and services that, seek to reduce user involvement and sequester formerly widespread knowledge and skills to integrate them into technical devices. In so doing they have ended up dramatically reducing the skills, abilities and know-how that traditionally enabled individuals and communities to deal with the most diverse aspects of daily life: to take care of the environment, of others and often themselves.

Now we know that this way of thinking and doing is unsustainable and that we must discuss how to change direction: to change ideas about the user’s role and move from passive to active involvement; from the final user as part of the problem, to his/her possibility, capability and will to be part of the solution. In other words, what has to be imagined is a user who is also *co-producer of the results* he/she wants to achieve, able to do so because he/she has (some of) the necessary intellectual and practical resources and, above all, because he/she is best acquainted with the specific problems to be solved (Manzini, Jegou, 2003; Cottam, Leadbeater, 2005; Young Foundation 2006).

To take seriously all that means to conceive and develop systems able to consider and evaluate people’s capabilities in terms of sensibility, competence and enterprise: systems that enable people to fulfil their potential, using their own skills and abilities in the best possible way to achieve their desired results.

This approach implies the introduction of two concepts that are, in my view, very important to design culture: the concept of *capability*¹¹, for what regards the role of users, and the one of *enabling solution*¹², for what regards the relationships between technological systems and achieved wellbeing. Through these concepts we introduce a second ethical guideline, that expands on and gives a deeper insight into the first:

¹¹ *Capability*: the possibility of a person to achieve a result using his/her own personal resources and the set of solutions he/she has access to. This concept of “capability” is taken from Nussbaum’s and Sen’s theories. The most interesting aspect of this concept is that it leads us to talk about people’s well-being moving our attention away “from goods to what goods enable human beings to achieve” (Nussbaum, Sen 1993).

¹² *Enabling solutions*: systems of tangible and intangible elements (such as technologies, infrastructures, legal frameworks and modes of governance and policy making) that enable individuals or communities to use their skills and abilities to best advantage and, at the same time, make a proposed solution more effective, more accessible and therefore more likely to spread. The solution quality can be evaluated by considering its *enabling potential*, its *production efficiency*, and its *reproducibility* (Manzini, Collina, Evans, 2004) and finally, but most importantly, *its quality of interaction* (Cipolla, 2004)

> **Enable people to live as they like, and in a sustainable way.**

As we said, this second guidelines is based on a new vision of the user's role. But the change needed is not only on the user's side. Moving from the idea of "designing to solve problems" to one of "designing to enable people to live as they like" while moving toward sustainability, implies also a change in the designer's role. In short: they should not (try to) impose their ideas of what they think should be done, but they should actively and positively participate in the social processes where these new and promising ideas are emerging. But are these promising ideas really emerging?

Social innovation processes

Observing society as a whole and in all its contradictoriness, we can see that alongside numerous, unfortunately extremely worrying, tendencies signals are also emerging that indicate different and far more promising developments.

Looking at society carefully and selectively in this way, what we can see are people and communities who act outside the dominant thought and behaviour pattern and that, when faced with a result to achieve, organise themselves in such a way as to get what they want directly themselves. Groups of people who re-organise the way they live their home (as in the co-housing movement) and their neighbourhood (bringing it to life, creating the conditions for children to go to school on foot; fostering mobility on foot or by bike). Communities that set up new participatory social services for the elderly and for parents (the young and the elderly living together and micro-nurseries set up and managed by enterprising mothers) and that set up new food networks fostering producers of organic items, and the quality and typical characteristics of their products (as in the experience of Slow Food, solidarity purchasing and fair trade groups). The list could continue¹³.

What do these *promising cases*¹⁴ tell us? They tell us that, already today, it is possible to do things differently and consider one's own work, one's own time and one's own system of social relationships in a different light. They tell us that the learning process towards environmental and social sustainability is beginning to build up a body of experience and knowledge. They tell us that there is an inversion of tendency from the disabling processes of the past (and sadly still dominant today): the cases we are talking about here are the result of the enterprise and ability of certain people – *creative communities*¹⁵ – who have known how to think in a new way and put different forms of organisation into action.

Of course, these cases may be considered as minority and marginal. But this is a mistaken perception. On the contrary, they are the most promising aspects of great, on-going, social and cultural changes. In fact, they are based on, and motivated by, some profound *supporting trends* such as: demographic changes, the growing evidence of environmental limits, the on-going evolution towards a knowledge-based network society (Beck, 1997; Giddens, 1991, 2000; Castells, 1996; Pine, Gimore, 1999; Rifkin, 2000). In other words, the great changes that the on-going trends are generating are the ground on which a positively oriented

¹³ These promising cases emerge from research carried out by the Faculty of Design and of the Department INDACO of the Politecnico di Milano, in collaboration with other European Universities and research centres, and with the UNEP (United Nations Environmental Programme). From this collaboration has emerged a catalogue of promising cases and the book: E. Manzini, F. Jegou, *Sustainable Everyday. Scenarios of urban life*. Edizioni Ambiente, Milano, 2003. For more cases like these, see for instance the web site <http://www.sustainable-everyday.net/EMUDE/>.

¹⁴ *Promising cases*: examples of initiatives where, in different ways and for different motivations, some people have re-oriented their behaviour and their expectations in a direction that appears to be coherent with the principles of sustainable development.

¹⁵ *Creative community*: groups of people who cooperatively invent, enhance and manage innovative solutions for new ways of living. This concept has been focalised in the framework of the EMUDE research. EMUDE was a Special Support Action promoted in the ambit of the 6th Framework Program (priority 3-NMP) of the European Commission. EMUDE was coordinated by INDACO, Politecnico di Milano and was developed by 10 research centres and universities and 8 European schools of design. EMUDE finished in April 2006, but the same line of research is now continuing in another, recently started, European research project called LOLA-*Looking for likely alternatives* and in another world wide programme, *CCSL-Creative Communities Sustainable Lifestyles*, promoted by the Sustainable Lifestyle Task Force, founded by the Swedish Government and endorsed by the United Nations Environmental Program.

process of social innovation (Young Foundation, 2006)¹⁶ is emerging and will hopefully grow and generate the sustainable ways of living that we desperately need. However, we must add and underline that today, the possibility for this emerging social innovation process to grow and become a mainstream tendency is only potential, or better, it is an opportunity¹⁷. And that its realisation will depend on several interwoven factors. One of them is what designers will (be able to) do.

In this framework we can introduce a third ethical guideline, that gives a clearer indication of what the designer's role should be in the transition towards sustainability. It can be formulated in this way:

> Enhance social innovation, and steer it towards more sustainable ways of living

This guideline has an important implication not only for designers' practice, but also and even more, for the vision that they have of society and of themselves (in society). Moving in this direction, designers have to be able to collaborate with a variety of interlocutors, putting themselves forward as experts, i.e. as *design specialists*¹⁸, but interacting with them in a peer-to-peer mode. More in general, they have to consider themselves part of a complex mesh of new *designing communities*: the emerging, interwoven networks of individual people, enterprises, non-profit organizations, local and global institutions that are using their creativity and entrepreneurship to take some concrete steps towards sustainability¹⁹.

¹⁶ According to the Young Foundation: "*Social innovation* refers to new ideas that work in meeting social goals" (Young Foundation, 2006). Another definition could be: "*Social innovation* refers to changes in the way individuals or communities act to obtain results (i.e. to solve a problem or to generate new opportunities). These innovations are driven by behavioural changes (more than by technology or market changes), which typically emerge from bottom-up processes (more than from top-down ones). If the way to achieve a result is totally new (or if it is the result that is totally new), we may refer to it as a *radical social innovation* (EMUDE, 2006).

¹⁷ As a matter of fact, the same trends are also generating different, and very dangerous cases of social innovation: from gated communities to new fundamentalism, just to mention two. This means that nobody today can say what will be the result of the confrontation and composition of these different directions. What will really happen and how, at the end, the whole system is going to evolve is as yet unwritten. .

¹⁸ Social actors endowed with specific *design knowledge* and specific *design skills*: the knowledge that enables them to understand the full, macro-picture of how things have changed (and are changing), and the micro one, of local context characteristics and on-going dynamics; the design skills that are required to promote and enhance co-design processes in the new contexts and facing the new challenges.

They are *design specialists* in that they use design tools to facilitate the convergence of different actors towards shared ideas and potential solutions: proposing solutions and/or scenarios; formulating effectively whatever emerges from the collective design group discussions; developing the ideas on which partner convergence has been verified.

¹⁹ The notion of *designing communities* emerged in the final consideration of the EMUDE research results (EMUDE 2006). The theatrical and practical background was also given by other important lines of research, such as the ones developed by Pierre Lévy, on *collective Intelligence* (Lévi, 1994), or by Hilary Cottam and Charles Leadbeater of *open services* in the framework of the wider phenomenon of the *open source movement* (Cottam, Leadbeater, 2004).

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