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Design-driven obsolescence

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Abstract: Design-driven innovation increased the power of design discipline through the diffusion of a new important way of thinking: design is also able to change the sense of products. The consequence of this approach was the generation of new design-oriented products but also the dissemination of a design approach even in market fields that were formerly not-design-oriented. The economic advantage of design-driven innovation guaranteed the approval of this approach even in design schools, without hesitation. But are we sure that a design-driven innovation is always positive? What happens if design drives the substitution of a product too soon or too quickly? Is there also a negative effect of design-driven innovation? Could we call it design-driven obsolescence?

Keywords: Design-driven, Innovation, Obsolescence, Product, Didactics

1. Known forced obsolescence techniques.

The main aim of a company is to make money from their sold products. For this reason, an actual topic is the duration of a product, and especially the project of that duration.

Did you know that you don't need a new product until companies decide to instill the need for them? The civilized world needs obsolescence techniques otherwise their products would be too long lasting and there would be insufficient money from them.

Latouche (2015) explained the three main features of obsolescence: programmed, symbolic and planned. Once, producers were accused of using hidden tricks in the production process in order to make the cost of repairing the product so high that it became cheaper to replace the product. Sometimes even the materials are chosen in order to limit the duration of a specific key-component. This kind of technique is called *programmed obsolescence* and it is focused on the generation of a functional fault that affects the performance of the product.

In the contemporary market, the diffusion and the promotion of updated models of an existing product is a well-known technique to force the substitution of that product, sometimes without a real enhancement of its functional features. (Encyclopedia Treccani). A slight improvement of a minor function, a small change in the edge's radius of curvature of the shell, a very pervasive advertising campaign are all able to switch the obsolescence on a perceptive level: the existing product becomes suddenly outdated. The obsolescence is no more functional (the object still works perfectly): in this case, it is defined as *symbolic obsolescence*.

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Symbolic obsolescence is specifically referred to objects that are positioned on the exhibited value sphere (status symbols), where the sense of the product is above all given by its capacity to be contemporary and innovative. The duration of the product is no more a significant value.

Sometimes a product is forced to become obsolete by forcing the obsolescence of the requirements that are necessary to its functioning: i.e. a software must be changed because the operating system has been upgraded. Latouche defines this *planned obsolescence*.

2. Design-driven obsolescence

The forced substitution is a very actual matter in many contemporary products: if the programmed obsolescence was intended above all for electronic devices, where the technological core is hidden in the inside "black box" (Jasanoff et al., 2013), the symbolic and planned obsolescence is potentially related to many other market sectors, thanks to the many different techniques which sometimes are used, often unconsciously.

Have you ever considered that eco-efficiency is another way to make a product obsolete?

We are now living a period of flaunted attention to sustainability, to ethics, to the environment: companies rely on the communication of green, bio, eco qualities of their products. "But it is important to pay attention and to avoid pseudo-solutions of eco-efficiency that pour many new energy-efficient products onto the markets. Their energy-saving will never reimburse the environmental cost for the dismantling of the old ones" (Latouche, 2015). An example can be the diffusion of photovoltaic panels that, after an initial excitement, are now under control because the sum of the production and dismantling costs seem to be greater than their enabled cost savings. A new sofa, realized with ecological materials, completely recyclable, with a low environmental impact, with a positive life cycle assessment is a NEW sofa. The necessity of the purchase should be commensurate with the necessity of the substitution because the old sofa immediately becomes a waste product, and its dismantling is difficult for the same reasons that forced us to purchase the new one.

Considering that both the sustainability and the perceived meaning of a product are issues related to the design discipline, could we assume that design becomes an important partner of the symbolic obsolescence?

Recently a new washing machine was introduced onto the market: it has a black futuristic porthole (formal beauty), 10-years warranty for the engine (duration), remote management with a mobile-app (technology value). This product represents an excellent design result, but when the buyer purchases it, immediately two waste products are generated: the old and the new product. The new product becomes waste precisely when we are buying it and, thanks to forced obsolescence, the same reason of its choice will be the same reason of its substitution: despite the 10-years warranty, the new product will never last ten years. So, are we definitively sure that the substitution of a still-working washing machine is totally due to technological, environmental, performance reasons? Thanks to its good design, the hedonistic pleasure to have a beautiful new eco-friendly washing machine could be the only reason.

This is Design-Driven Obsolescence.

We should reflect even on technological innovation: the buyer of a new smartphone knows perfectly well that his/her product in 6 months time will be replaced by a new one, with a slightly more accurate camera-lens, a minimally bigger screen, with a barely improved battery, ... The producer and the customer make a deal: the first will give new innovations bit by bit to the second, who is

willing to spend money to always have an updated product. This is already the case with the software licenses, which need to be renewed after a fixed term; it will not be surprising if this approach (a sort of subscription) will eventually be transferred to the purchase of a smartphone.

3. Suggestions

"If to innovate is unavoidable, we must ask ourselves where, how and why we should do it" (Bistagnino, 2008). It is necessary to include the necessity of the project itself. About electronic products, which are all identical in exterior and functional features, the relevation is that there is no longer a project as there is no longer an attempt to provide different solutions for different people: the result is the choice of a product is only the choice of the brand.

Is it ethically sustainable each design operation that leads to a new meaning for an existing product? Is the design related cost always really necessary?

In this sense, the Design-driven innovation, especially if carried out on formal features, could be the reason for a forced product obsolescence.

"To design means to produce an object with the best technical and functional features, that will last as long as possible" (Mari, 2006). This implies even the attention on the duration of the meaning and of the sense of that product.

The race for innovation is constantly powered, arguing that it is the main strategy for the economic, political, social growth but when the substitution of an existing product is early forced then it is fair to doubt: maybe we are not talking about real innovation, maybe it is not a social growth but only a way to sell more products to the disadvantage of the environment.

By bringing design didactics into play, we can identify a risk: the risk of instilling in young designers the concept of design innovation which is the same as economics, while forgetting that the primary nature of a designer is to be a philosopher, creator, a technical and artistic humanist (Mari, in Favento, 2006).

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Marco Mancini was born in Italy in 1977. He is an Architect, Ph.D. in Design. He has been teaching at the University of Florence since 2005. Actually, his main topics are innovation theory and product design, with a focus on technological innovation and connections with a musical context.