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Open Standards: design for adaption
A new design vocabulary

Whenever there was a need for sharing, open standards have always emerged as a means to generate more flexible and resilient models of exchange.Today, the pro-active consumer is no longer judging an object for what it is but rather imagines what it could become and the objects themselves are starting to behave more and more like dynamic puzzles, self-improving product versions rather than rigid monoliths. Both producers and consumers are now enriching the overall product ecosystem by feeding it with new soft- and hardware plug-ins, updates and add-ons. Designing within certain common standards will however require a radically different mindset from all concerned parties.

Over the last 20 years we have been witnessing the early developments of a networked economy that is operated by its interconnected participants. Both companies and consumers have now potential access to a communication infrastructure that is geared towards sharing and exchange. This shift is profoundly changing our models of creation, production and consumption.

Decentralized information streams and sources have altered people's attention scopes, ambitions and goals and stimulated a more critical and pro-active attitude. Rather than swallowing manicured advertising made up by professional PR-departments, consumers are now informing, inspiring and instructing each other with homegrown content - using twitters, blogs and youtube movies to communicate their skills, knowledge and ideas. But the global mouth-to-mouth mechanism of the World Wide Web not only initiated a dialogue amongst consumers, it also started a conversation between consumers and producers. This emerging dialogue is generating exciting new business models and rearranging current artistic practices.

On the one hand it enables consumers to participate in the design process at various levels. Blogs facilitate product reviews and ratings and easy access to online instructions stimulate consumers to personalize, adapt, repair or hack products. On the other hand, producers can now obtain a huge amount of feedback on their products by observing all these millions of small movements online and subsequently respond to them in their next product versions. Some producers are even actively involving the end-user in the creative process by asking them to design new applications (eg. Apple's app store) or to propose new uses for their products (eg. roomba hoover[1]).

As a consequence, the consumer is developing a different, more active relation with their products; the pro-active consumer is no longer judging an object for what it is but rather imagines what it could become and the objects themselves are starting to behave more and more like dynamic puzzles, self-improving product versions rather than rigid monoliths. Both producers and consumers are now enriching the overall 'product ecosystem' by feeding it with new soft- and hardware plug-ins, updates and add-ons. This shift from product to process allows the product to be adapted over time according to personal needs and flavors.

Out of this creative dialogue the need for a common design language, a kind of shared design vocabulary with its own specific rules, characteristics and outcomes, is slowly emerging. This vocabulary is manifesting itself through common agreements within the dimensioning, assembly and material cycles of the object.

These agreements will facilitate collaborative design processes and streamline customer interactions. Dimensional guidelines, through standardization, will increase compatibility between interacting products. Design for disassembly, through self-evident construction and the use of reusable assembly techniques will facilitate adaption and reparation. And finally, clear material certification will improve closed recollection- and recycling processes.

The concept of introducing a set of open standards is nothing new. Whenever there was a need for sharing, open standards have always emerged as a means to generate more flexible and resilient models of exchange. The internet, for example, is entirely based on html coding, a common, free-of-charge text and image formatting language that allows everybody to create and share webpages and Wikipedia is nothing more than a common standard template that can be filled in, duplicated, shared and edited over and over again. We can clearly identify the use of open standards within our built environment as well. Our power infrastructure is a good example of a system that is regulated by specific design guidelines (standard plug diameters and bulb fittings), but also our logistical infrastructure is based on a set of common agreements within the dimensioning of its individual components (from cardboard box to container ship). In all these examples it is no longer about one company that creates a complete system for all but rather about several companies who all contribute to a bigger, common system. But in order to do so they all have to operate within certain very specific, but mostly hidden, settings.

Despite the obvious advantages that these common standards and design protocols bring, there is considerable skepticism amongst designers to adopt and embrace them – probably because, until recently, a seemingly infinite amount of resources indicated little need for more flexible and open systems and mass communication offered few opportunities for exchange[2].

In addition, these open models also raise questions around

accountability, profitability and formal expression. How do we credit the contributors, how do we generate money and, last but not least, how do we balance openness and protection, freedom and restriction? Since every standard by definition imposes a restriction, it limits our choices and obstructs our freedom to design and shape and it disrupts our independent position as designers.

Nevertheless, the more we continue to share and exchange, the more the need for common platforms will surface within all aspects of our culture. This doesn't mean that one system will replace the other. Sometimes the commons will do a better job, other times the classical systems will prevail. Both open and closed systems will continue to exist, but it is the evolution of both in relation to the emergence of a networked society as well as the growing range of hybrids (closed systems with open components) that need to be closely observed and tried out.

Designing within certain common standards will require a different mindset from all stakeholders of the design process. In order to think 'within the box', in order to accept and embrace the new opportunities that emerge out of common restrictions, we need to acknowledge that we are part of a bigger whole, rather than being the whole itself. It requires us to give up the myth to create 'something new', something that 'hasn't been done before' and to replace it by a willingness to dissolve into bigger projects that just make common sense. This new mindset will severely damage the romantic ideal of the 'designer-creator' and shift it towards the 'designer-collaborator'. And, let's face it, that's quite a different perspective to work from, since no designer of our generation wants to be a pixel as we all wanted to be the full-color image.

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[1]The Roomba is an autonomous robotic vacuum cleaner that comes with a serial interface. This interface is incompatible with standard PC/Mac serial ports and cables. It allows the user to monitor Roomba's many sensors and modify its behavior. Programmers and roboticists create their own enhancements to Roomba resulting in numerous 'Roomba hacks'. Some hacks are functional, others are purely fun. Roombas have sofar been converted into floor plotters, Wii remote controlled robots, 'hamster driven' vehicles etc.

[2]Mass communication often results in a hierarchical, top-down monologue: one sender, mostly a company, state or institution spreads a common message to the crowds through mass distribution channels like radio, TV or printed media. This mode of communication offers few opportunities for the receivers to give feedback and limits their possibilities to discuss the content of message amongst each other.
Peer-to-peer communication, on the other hand, generates a horizontal, decentralized dialogue : everybody informs everybody over the network. This allows all participants to swiftly exchange ideas, concepts and designs.