Towards user design? On the shift from object to user as the subject of design

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If design used to be a matter of physical form, its subject the material object, it now increasingly seems to be about the user and her experiences. A central problem with this development is the confusion between what *we are designing and* who *is going to use it—the shift towards* user design. *Trying to optimise fit on basis of knowledge about use and users, we risk trapping people in a situation where the use of our designs has been over-determined and where there is not enough space left to act and improvise.*

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Particularly in the design of electronic appliances, interactive systems and computational things, there has been an increased interest in 'experience design' and in designing the 'user experience'. The interest in designing experiences can be seen as both an effort to expand the design space, a part of a development of design discourse 'beyond the object' (Thackara, 1988), as well as a response to the shortcomings of existing models of how use and users are considered in the design process (cf. Mitchell, 1993; Jordan, 2000). As such, this represents an important development in many ways and by introducing new aspects of use, it can support opening up a rich design space.

The increased interest in users and their experiences must, however, also be understood in the light of designs failing to get approval by users and situations where the intended use of designs does not translate into actual use—and how the design community has responded to this. A major response to designs failing to gain approval and acceptance has been to consider it to be a matter of insufficient knowledge about people, their capacities, needs and desires and that design therefore needs to be based on the improvement of such knowledge. Thus, a range of methods for studying users, testing prototypes, involving potential users in the

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design process, etc., has been developed within the general area of user-centred design. With respect to this, the interest in experiences is an attempt to broaden the knowledge about use and users as a response to established ideas about usability and utility being overly constrained (cf. Jordan, 2000; Hassenzahl et al., 2001; Preece et al., 2002).

It is not experience design per se that is the focus of this paper, but rather some ideas seemingly underlying its development: the intention to design the user experience is but the latest in a progression towards the user becoming the subject of design. With its ambition to create a tight fit between object and user, this development seems to point to a situation where we are trying to optimise fit on the basis of predictions rather than knowledge, eventually trying to design something that is not there for us to design.

1 *From object to user*

To better understand the present discourse, it is often useful to consider its background. This story begins with the Modernist movements.

1.1 *From form to function*

With the social ambitions of modernism, design increasingly became a matter of designing the 'use' of objects. With modernism came a reaction against what was seen as preoccupations with the form, or rather decoration, of objects with little relevance to needs of people and society. A new agenda developed in which the well-being of people should be enhanced through properly designed appliances and housing. Gropius (1926, p. 95) writes:

The Bauhaus wants to serve in the development of present-day housing, from the simplest household appliances to the finished dwelling. In the conviction that household appliances and furnishings must be rationally related to each other, the Bauhaus is seeking — by systematic practical and theoretical research in the formal, technical and economic fields — to derive the design of an object from its natural functions and relationship.

While notions of form and material were central, form became subordinate to function, as expressed in the paradigm 'form follows function' (Sullivan, 1986). A related position was presented by Mies van der Rohe (1964, p. 102):

I do not oppose form, but only form as a goal. …Form as a goal always ends in formalism. For this striving is directed not towards an inside, but towards an outside. But only a living inside has a living outside. Only intensity of life has intensity of form. Every How is carried by a What.

With modernism, design becomes not only a matter of forming objects as such, but increasingly a matter of how ways of use, and even ways of

living, can be designed and that there therefore can be such a thing as a social agenda for design. Fleischmann (1998, p. 302), while a student at Bauhaus, wrote:

Economy of living must first be economy of labour. Every door-handle must require a minimum of energy to operate it. The traditional style of living is an exhausted machine which enslaves the woman to the house. …Today the woman is the victim of a false style of living. It is obvious that a complete change is urgently required. New objects (the car, aeroplane, telephone) are designed above all for ease of use and maximum efficiency. Today they perform their function well. Other objects in use for centuries (the house, table, chair) were once good, but now no longer fully do their job.

Not only does this clearly state an ambition of social transformation, it also states the idea of liberation through efficiency, an idea still present in the rhetoric of usability (as is the example of the door-handle (cf. Norman, 1990)).

1.2 From function to communication

The new direction towards designing 'use' that can be seen in (parts of) the Modernist movement also meant that the notion of users, their reactions and experiences, came into play. By now, we know that while the social aspects of the modernist project may have been ambitious, they did not necessarily succeed as there is a number of infamous examples of misfits between intended and actual use, between the designer's and the user's understanding of the object (cf. Mitchell, 1993).

Moving design closer to designing the 'use' of objects, it therefore seemed relevant to consider how a given design invites potential users to interpret its form and to what extent and in what ways this process is something that designers can control. This approach is perhaps most explicitly articulated in the semiotic stance towards design, as in the following statement by Kazmierczak (2003, p. 45):

The position presented here redirects the perceived ground for design away from objects themselves, as independent from mind, toward the conceptual characteristics these object embody as a means for communication. It redefines designs from finite, fixed objects of aesthetic and practical consideration to semiotic interfaces enabling the reconstruction of meaning by receivers.

The idea of design as communication is also clearly related to the ambition to make a given design easy to understand and interpret: 'The designer communicates by means of the product sign. The industrial designer should make a sign as clear and unequivocal as possible, so that the target group understands the message' (Monö, 1997, p. 51).

Crampton Smith and Tabor (1996, p. 40) state that 'The fundamental training and skills of artist-designers lie in detecting, creating, and controlling cultural and emotional meanings'. Design, then, becomes a matter of using the right 'language' to express the functionality and intended use of the object:

The more strategically successful the design is, the more accurately and consistently does it trigger similar thoughts in different receivers. These thoughts, in turn, cause the receiver to respond to the design in a certain way, and thus define its effectiveness. Unless the receiver comprehends the design as projected, the design is unsuccessful or ineffective. (Kazmierczak, 2003, pp. 48f)

Thinking about design in terms of communication represents another step closer to the user, and especially towards design as a matter of shaping the perception of objects. The use and user of an object have become so central that the question of whether a design even can exist without them is raised: 'So defined designs imply and require the participation of the receiver. By stressing the cognitive nature of the design's mediating function, we are bridging physical form and comprehension. In the extreme, this position implies that designs are not designs unless there is a receiver' (Kazmierczak, 2003, p. 47). Compared to the idea of design as the creation of objects, this is a step towards redefining the subject matter of design in terms of concepts more closely related to the user/receiver.

1.3 From communication to experience

Moving even closer to the user of a design, the next logical step would be not only to design the communication process but to focus on the results of that process: the user's experience of the object. Mitchell (1993, p. xxiii), arguing in favour of 'a redefinition of design in terms of user experience, not physical form', writes:

It is now becoming clear, in view of the large number of award-winning designs that have failed the test of use, that the design community's criteria for successful design differs radically from that of design users. …design itself needs to be redefined in terms of peoples' experiences, instead of in terms of objects. This static geometrical criteria of the design of the industrial era must be abandoned in favor of a focus on the dynamic, multisensory experiences of design users. (1993, p. 131)

Here, the movement towards the user, her needs, desires and experiences, clearly has to do with responding and adapting to designs failing the test of use and so it seems to be a logical conclusion that more extensive knowledge and a better understanding of the user is what is needed for designers to develop better solutions. Describing interaction design as being 'about creating user experiences that

enhance and extend the way people work, communicate and interact' (Preece et al., 2002, p. 6), Preece et al. (2002, p. 5) argues that:

A key question for interaction design is: how do you optimize the user's interactions with a system, environment or product, so that they match the user's activities that are being supported and extended? One could use intuition and hope for the best. Alternatively, one can be more principled in deciding which choices to make by basing them on an understanding of the users. … In particular, it focuses on how to identify users' needs, and from this understanding, move to designing usable, useful, and enjoyable systems.

That knowledge about use and users can play such a role in design is no longer a controversial idea but something being taken into consideration in many areas of design. There is, however, another aspect to this development that needs our attention as well. More than just a matter of how to gain the right background and input to the design process, this movement also seems to indicate a shift in what it is we think that design is about.

If design used to be a matter of physical form, its subject matter being the material object, it now increasingly seems to be about the user and her experiences. Starting with the social ambitions of modernism and the interest in shaping the use of things, the discourse has developed and expanded. Now, we face the question of what it means to design experiences, as in the following description of experience design by The American Institute of Graphic Designers (AIGA): 'A different approach to design that has wider boundaries than traditional design and that strives for creating experiences beyond just products or services' (AIGA, 2005). But what does it mean to say that the product of design is the 'user experience'? This question is quite different from the issue of what information and knowledge we think is needed in the design process and how we choose to obtain it—this is a question of *what* we think we are creating.

2 *Towards designing the user*

If we use the sketch of a possible development presented above as a basis for reflecting upon the present situation in general, and upon statements such the ones made about 'experience design' in particular, some interesting questions arise. Though certainly composed of many different perspectives and values, a few key ideas seem to stand out. Starting with ideas such as Gropius' (1964, p. 95) ambition to 'derive the design of an object from its natural functions and relationship', the idea that designs can be optimised on basis of knowledge about users has been developed and extended to include the notion of 'fit' not only in

terms of utility or usability, but also with regards to interpretation, understanding and experience. In many ways, it is design aiming for efficiency, be it with regards to practical functionality, unambiguous communication or user experiences.

Creating this fit between people and designed things also has something to do with making people fit into systems, societies and strategies. Consider, for instance, the following argument for user-centred design in systems development:

It is from work in cognitive psychology over the last several decades that we have come to appreciate that we cannot just impose designs on users. People are active parts of the system, and because they are much less predictable and less well understood than the computers and other technological parts of the system, they require even greater study and understanding. (Hackos and Redish, 1998, p. 15)

With the increased interest in user experiences, the perspective has changed somewhat but the issue of fit is still present:

A pleasure-based approach to fitting the product to the person would, however, require a far richer picture of the person for whom the product is to be designed. …Pleasure-based approaches still include looking at usability issues, so the cognitive and physical issues, including anthropometrics, are still important. However, because such approaches also take into account fitting the product to the person's lifestyle, there are many more issues that need to be considered. (Jordan, 2000, p. 60)

By providing the right material pre-conditions, we aim to make people more productive, more willing to consume, etc., through our designs.

As it seems, the problems of designs failing the tests of use have generated a set of ideas relating to the role of the user in design. First, that these problems can be avoided through the optimisation of fit between object and user; second, that design can, or even needs to be based on knowledge about users, their capacities, abilities and desires. These ideas, then, seem to have pushed definitions of design towards being increasingly in terms of the user, as in accounts of, for instance, 'experience design'. There are, however, reasons to question this development. Not necessarily because of any of these ideas in themselves, but because of how they seem to interact when combined.

The central problem with this development, I will argue, is the confusion between *what* we are designing and *who* is going to use it—the shift towards *user design*. The reason this becomes so problematic is the idea of optimising fit on basis of knowledge about use and users. To fit means to fit *something* at the expense of something else; to optimise fit therefore

requires that we know, in detail, with respect to *what* we are doing so. Now, if we do not know, we would be systematically reducing the space for alternative interpretations and ways of using our design on basis of the wrong reasons, be it a simple door-handle optimised for 'push' when we need to 'pull', or a simplified user interface designed with just one task in mind when we need to know and change what happens behind the surface as we intend to do things differently.

In the following, I will try to show that there are principal, as well as practical, reasons for thinking that we cannot rely on knowledge about use and users in this way, and that we therefore risk trapping people in a situation where the use of our designs has been over-determined and where there is not enough space left to act and improvise. And this all starts with the rather trivial fact that there cannot be users of things that do not exist.

2.1 People

First of all, people, not users, inhabit the world. A 'user' is something that designers create. As a person turns to an object, inviting it to be a part of her lifeworld, making it hers, she might decide to start using it for some purpose; and as she begins to use the object, she becomes a 'user'.

The central role of the object in the definition of what a 'user' is comes from the fact there cannot be users of objects that do not exist. Clearly, there must be something there for us to 'use' in order to become 'users'. And it is not until then, when accepting an object and starting to use it, that we turn into users. Thus, the concept of a 'user' is based on an object-centric perspective, the person defined in relation to the object (cf. Grudin, 1990).

User-centred design then risks becoming a kind of *user design*. It is user design in the sense that it is design where the processes through which people turn into users are in focus and where the explicit aim is to work with the results of this process, i.e., how use and user should turn out. We, as designers, turn people into users by means of our designs, by presenting a thing to be used. By making the desired interpretation of the objects obvious and impossible to resist, we aim to design not only the object itself but also the perception, and even the experience, of it. Indeed, the terms 'user testing' and 'user evaluations' can be read in two rather different ways.

If we think of this process of becoming users as being a process of inviting and accepting the things that will become the building blocks of our lifeworlds, it is also less clear that this is a process that designers want to or should try to control, compared to when we understand use as a matter of communication of designer intent.

2.2 Use

As discussed in the previous section, there cannot be users before there is something to use. For the design process, this means that the 'use' we aim to design for cannot exist until we present the design itself. Thus, we work with some idea about what this 'use' will be like and it is the imaginary 'users' of this intended use that we refer to when we say user-centred design.

This fact is sometimes hidden in the methods of user-centred design, where people frequently are referred to as 'users' all along. A response to this would perhaps be that while there are no real users before a given design has been presented, there are 'potential users' or people who eventually will become users. Especially when combined with iterative and/or participatory design methods where 'users' are involved in many different stages of the design process, it can be argued that these issues do not matter that much. Still, from an epistemological point of view, these are very different things.

The 'use' that we simulate, create and invite as part of a design process, be it iterative or participatory, cannot deal with what it means for something to become someone's, what it means for an object to become part of someone's life. This is by no means just a matter of inadequate design methodology—even if we work together with the people who will actually use the objects we are designing, we can only work with abstract notions of use and experience. Even though I, as the soon-to-be owner of a new house, can be involved in the process of planning it, designing it and even building it, I cannot *live* in it until it has been built. And in this sense, any ideas of what living in it will be like before I have moved in will relate only to intended use. In other words: while we do design the thing, we can only predict its use. This means that there will always be, to various degrees, a difference between the intended use that governs the design process and the eventual use of the resulting design.

2.3 Objects

The argument that there cannot be users of things that do not exist and that design therefore, by necessity, works with predictions about use and

users rather than knowledge is essentially an a priori argument. As such, it could perhaps be seen as a philosophical remark with little practical consequence. There are, however, reasons to believe that it is also important to acknowledge this distinction in practice. Akrich (1992, p. 207f) writes:

For some time sociologists of technology have argued that when technologists define the characteristics of their objects, they necessarily make hypothesis about the entities that make up the world into which the object is to be inserted. Designers thus define actors with specific tastes, competences, motives, aspirations, political prejudices, and the rest, … A large part of the work of innovators is that of 'inscribing' *this vision of (or prediction about) the world in the technical content of the new object. … To be sure, it may be that no actors will come forward to play the roles envisaged by the designer. Or users may define quite different roles of their own.*

While the process of people becoming users certainly is in focus in user-centred design, it is often from the perspective of how to make it as fast and efficient as possible: what needs to be done in order to make the intended use of the object easy to understand, its functions easy to learn, the product immediately appealing, etc. Use, however, seems to be a kind of an on-going achievement, the results of a continuous process of encounters with objects and how one acts upon them. Even though this process may seem trivial and an unconscious thing that we do, this is also a process during which the lifeworld of the person changes, potentially also changing the person herself. As such, this process seems to result in alternative ideas about what the meaningfulness and use of an object might be like.

This is especially relevant as more complex products that introduce new technology seem to generate alternative interpretations. When designing a chair, there is a long tradition of chairs before us that cannot be easily escaped since it is embedded within the practices of design and use. When designing a new computational thing, however, the object category might not even exist. Trying to think about how to understand it in terms of existing object categories, we find ourselves in a strange situation where we, for instance, refer to a thing as a 'mobile phone' although the device with its built-in camera, text (SMS) and image (MMS) based on 'anywhere, anytime' communication only shares the option to talk to someone over a distance with what we used to think of as a 'phone'. Correspondingly, existing social protocols and use practices no longer apply as they are based on rather different conditions.

Even so, mobile phones are generally considered to be mainly personal devices used for private conversations between remote locations. However, when studying actual use it becomes clear that there is much more to the use of mobile phones than this, as exemplified in this study of mobile phone use among teenagers in Sweden:

Several times when doing field observations, we had to reconsider our initial ideas about to whom the phones belonged. The mobile phones passed through so many hands, that we had to stop and ask ourselves 'whose line is this anyway?'. Initially, we assumed that the first person observed to be handling the phone to be the owner of the phone. It turned out to be a lot more complex. Many teenagers handle each other's phones, using them for various purposes, and it is sometimes impossible to understand from observation to whom the phone actually belongs. This borrowing and lending of phones seems natural to the teenagers themselves. These observations suggest that the mobile phone is a collaborative resource for teenagers, rather than just a personal phone. (Weilenmann and Larsson, 2001, p. 108)

The picture of actual mobile phones use presented in this study clearly differs from the intended use that governed its design, and as such this practice represents an alternative interpretation of what its use is about. Similar observations have been made regarding the use of other systems for communication and collaboration, as noted by Dourish (2001, p. 133):

When we look at how these [organizational information] systems are actually used, we find that the 'features' they offer — the official 'functionality' of the system — tell only a small part of the story. What is important is not just what the system can do, but rather, what it really does do for people in the course of doing their work. …When we look at what is going on, we begin to see systems as embedded within the specific practices of filing, storing, categorizing, organizing, and retrieving information that surround it.

In her seminal work on the study of man–machine communication, Suchman (1987, p. 67) even remarked that: 'every instance of meaningful action must be accounted for separately, with respect to specific, local, contingent determinants of significance. …Structure, on this view, is an emergent product of situated action, rather than its foundation'. It seems that the relevance of these observations is not restricted to the domain of technology—processes of local reinterpretation and re-appropriation seem to be occurring also in the use of less complex objects, as in this description of the 'use' of various features of modern city spaces by skateboarders:

… a handrail is a highly functional object; both the time and nature of its use are fully programmed. If there is a meaning at all in a handrail,

then it is directly related to function: that of safety. The surprise of the skateboarder's reuse of the handrail — ollie-ing up onto the rail, and sliding down its length sideways, weighted perilously on the skateboard deck as it once balances and moves along the fulcrum line of the metal bar — is that it targets something to do with safety, with everyday security, and turns it into an object of risk, where previously it was precisely risk that was being erased. The whole logic of the handrail is turned on its head. (Borden, 2001, pp. 185f)

Another example illustrating a range of reinterpretations of an object is the turntable. Originally developed as a device for private consumption of recorded music, it came to partly replace live music at dance venues when operated by disc jockeys, thereby receiving a new role. More recently, it has become a musical instrument in the hands of turntablists in rap music. To use Borgmann's terminology, it has developed from device to focal thing (Borgmann, 1995). This reinterpretation the turntable as an instrument depends on the possibility to physically control how sound is being played back by moving the record in various ways. If we compare this with the design of the contemporary CD-player where the complexity has been hidden behind a set of buttons that enable us to start, stop, etc., the predefined tracks of the recording, the CD-player is clearly easier to operate and more efficient in use, but it enables little control over the recorded material except for the predetermined modes of use. Yet, CD-players are also being used in alternative ways to create music (Cascone, 2000).

As it seems, the process of people becoming users, interpreting objects in terms of use, frequently generates alternative pictures of what the use of the object should be like. Further, there are many examples in which such reinterpretations have become more important and influential than the original notion of use that governed the design process. In his phenomenological account of technology, Ihde (1993, p. 116) refers to this difference between design intentions and actual use as the 'design fallacy':

Only sometimes are technologies actually used (only) for the purposes and the specified ways for which they were designed. Two interesting examples of this have been the typewriter and the telephone. Both were originally intended as helps for impaired persons, …What was to become their extremely important set of social uses ultimately entailed little of the original designer intent.

Thus, it is not that there is nothing in actual use that corresponds to the intended use, but that there is so much more to it and that this complexity to a significant extent comes as a result of people making

their own interpretations when incorporating objects in their lifeworlds and their everyday practices (cf. also de Certeau, 1984).

3 *Implications*

How could an interpretation of the use of handrails such as the one discussed above be thought of in the design process underlying its design? The answer is that it could not—at least not as part of any systematic treatment of possible use situations, since it is an example of a radical reinterpretation of the design objectives. Further, since the handrails were there before the skateboarders—how could skateboarders as a 'user group' possibly be part of the design process? Yet, it would only take a bit more of optimisation to prevent this rail-sliding from happening, e.g., if we used non-slip rubber hand grips to further improve safety.

If nothing else, the differences between intended and actual use should make us less focused on trying to reduce this complex process to what is easy to understand, quick to learn, immediately appealing, etc. But this also points to a fundamental problem in this approach to design: what happens when we reduce the space for personal interpretation of 'use' in our ambition to design for efficiency, when our understanding—and indeed the limits of what knowledge we can have access to during the design process—of 'use' cannot match the complexities and subtleties of actual use? Jones (1988, p. 221) once made the following remark:

But there is a hidden cost, a severe one, which has only recently become evident. It is that of inflexibility, over-specialization, the realization that this 'plastic world' of homogenized, cost-reduced products is increasingly unalterable, un-repairable, and imposes upon us (from its stabilization of the larger scale of functions) a life, an obligatory way of using *what is made, that is felt as coercive, not satisfying, with decreasing outlets for individuality. The lesson is obvious, though how to apply it is not: do not stabilize functions.*

Creating a tight fit leads to a reduction of the ambiguity in how to interpret the object in terms of use. When asking 'what is the use of this?', there is a ready answer and we do not have to think further about what it means. As a result, the question of what the 'user' of this thing will be like is not likely to be given much attention—understanding the intended use, we quickly find ourselves using the object the intended way without reflecting much upon what that actually means. Dunne (1999, p. 30) writes:

This enslavement is not, strictly speaking, to machines, nor to the people who build and own them, but to the conceptual models, values, and systems of thought the machines embody. User-friendliness helps to

naturalise electronic objects and the values they embody. For example, while using electronic objects the use is constrained by the simple generalised model of a user these objects are designed around: the more time we spend using them the more time we spend as a caricature.
As the possibilities for alternative interpretations are systematically reduced as a result of the designer's attempt to optimise the design with respect to fit, the room for finding our own solutions, possibly coming up with interpretations that are more interesting than the original intent, is reduced to a minimum. The situation gets worse when not only one, but a plethora of objects try to make us do things in often incompatible ways—a situation requiring us to be creative in order to make everything work together. We will be surrounded by objects that try to fit us very closely and as a result, most of the space for improvisation and interpretation will be occupied. This is why the focus on design failure as related to insufficient knowledge and the resulting movement towards the user is so problematic.

One might ask, what is design about if not 'use'? Most of our everyday things are used in one way or another and so designing such objects means that we create things to be used. But there is a fundamental difference between designing things to be used and trying to design use or the user experience. To say that designers should refrain from over-determining use and users is not to say that ideas about use should not be part of our concern or even that it should not be our main concern, but that we need to acknowledge what it is we are designing and what falls outside of that. This is why the shift from object to user as a basis for design is so problematic: it blurs basic conceptual distinctions between the design, the interpretation, the experience, the use and the appropriation of an object.

It seems unlikely that the failures of, say, certain Modernist housing projects therefore would have been prevented had they just used a more user-centred approach. This is not a question of the ways in which we need to expand existing definitions of usability and methodological frameworks in order to deal with the user experience, this is a question of what knowledge in general can be obtained during the design process. And it is not a question of simply obtaining more knowledge—there are fundamental problems associated with the idea that design is about determining the use of objects in detail.

Of course, it is not the knowledge generated through user-centred methods that is the problem—it is what we think that knowledge is about and how we act upon it. I have tried to show that actual use, as

well as 'users' and their 'experiences', ultimately is not there for designers to design. Therefore, it does not seem to be a very good idea in general to define what design is about in such terms.

4 *Ways out*

I have tried to argue that there are fundamental problems associated with design as not only centred on the user but also increasingly about designing what use and user should be like. This is not to say that we cannot use notions of use and users in design, but that we perhaps should take more care in how we do so.

It is sometimes said that we have moved beyond the object and that design has become a matter of process rather than product. Looking closer, however, we still find the focus on the object itself in, for instance, the concept of a 'user'. Thus, the arguments presented here are not meant to imply a return to designing things, but as an attempt to illustrate how the object still dominates our perspective. Perhaps, the key to understanding how to find a way out lies here, with our understanding of the object. One suggestion for how to address the need for a new agenda would thus be to return to a focus on the designed thing but from a different point of view. Such a reconsideration would probably have to involve questions of form and material, expressions and aesthetics, in light of the developments away from the 'static geometrical criteria of the design of the industrial era' (Mitchell, 1993, p. 131). But it would also have to expose and question how we relate to use and users, as such notions are so closely related to how we understand the object to be designed.

For instance: a central objective of participatory design is to reduce the distance between designers and users, and so one interpretation of what happens is that we, through the characteristics of the process, change (some of) the people who might be 'users' to also become 'designers'. The problem, however, is that although people active in the domain one is designing for certainly possess knowledge about that domain, their ideas about future use is just as much a prediction as anyone else's. There is, however, another interpretation that could suggest an opening, namely that this is an attempt to pass on certain questions about use to the 'user', be it that it is done by bringing people into the design process rather than by leaving them open for future users to answer. What would happen if we used our knowledge about current practices not to answer certain questions by our design, but to avoid answering them? Or, in other words, if we tried to make our design ask questions about

use that were open for its users to answer, rather than thinking of the design as a way of providing well-defined answers from the start.

It is somewhat ironic that perhaps the most interesting work on how to pass on questions about use to users has been done in domains that often openly criticise user-centred design, for instance critical and experimental design. By introducing elements of resistance, de-familiarisation, provocation or interference with processes of acceptance, questions about use rather than solutions are put into focus (cf. Dunne, 1999; Dunne and Raby, 2001; Blauvelt, 2003). While rarely relevant for everyday use, there is nevertheless much to be learnt from these strategies as they more explicitly relate to the notion of designs as not solutions to problems, but as arguments or statements (cf. also Seago and Dunne, 1999). And as such, they represent a different idea of what the designed object could be. Further, although the idea that designs need to be open with respect to future use is not new (cf. Jones (1992) on 'pure design'), there seems to be an increasing interest in concepts such as 'open tools' (Aarts and Marzano, 2003), 'open source architecture' (Wolf et al., 2004) and the 'hackability' (Galloway et al., 2004) of technology.

So far, our orientation as designers has been based on the object looking towards the user. Now, we need to make a 180° turn: building on the experiences and knowledge gained from the development of the discourse discussed in this paper, we can turn our focus back on the object from this new point of view. We need a foundation based on an understanding of use as achievement rather than as reproduction; of the object as experienced, rather than the experience as object.

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