

Reframing Business – and Design?

– A critical look at co-creation

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Abstract

The collaborative aspect has become a prominent focus in design discourse and words like *user-driven innovation*, *user studies*, *participatory design* and *co-creation* are frequently used in the design terminology of researchers, practitioners, not to mention business organizations. This reflects a shift in attention from product and manufacturing to users and experience.

Normann (2001) speaks of reframing business and arguably the changing landscape of design as described by Sanders and Stappers (2008) is making designers reframe their practice. (cf. Schön, 1991). Employing user studies, participatory design and co-creation looks like an easy and accessible way towards innovation, unlocking the creativity of the customers to develop future business. To no surprise these words are buzzing around the business and design offices.

However it seems, the buzz is failing to deliver, and it is important to question why. Using *co-creation* as an example, we claim that businesses and designers are stuck on the buzz. Borrowing a term from cognitive psychology, we argue that co-creation has created a *fixation* among businesses and designers, where the strong focus on the innovative potential of users as co-creators paradoxically has become an obstacle for both radical innovation and *real* co-creation.

The paper brings an overview of different and conflicting perspectives on co-creation, and explains how these perspectives stem from different paradigms. Furthermore, the paper suggests designers to consciously reflect upon the image of design and designers.

We want to highlight researchers from both design and business who claim design and design thinking to be a new way of bringing both insight and innovation, a new way of working with thought, human systems and *design-driven innovation* (Buchanan 2001; Verganti 2009). We think it is time to encourage designers to expand their current vision from user-driven innovation to design-driven innovation. It is time to reframe design from a designer's perspective – and why should designers not have the capabilities to reframe business as well?

Keywords

Co-creation; fixation; design practice; business perspective; design perspective; paradigms; innovation.

The origins and original meaning of co-creation

Co-creation can be defined as any act of collective creativity, i.e., creativity that is shared by two or more people (Sanders & Stappers, 2008). Opinions vary widely on who should be involved in these collective acts of creativity, when and in what role, but basically co-creation, as the abbreviated prefix indicates, implies some sort of equality between the co-creators, whether we are speaking of designers and users or companies and customers. However, this essential and seemingly obvious definition does not appear to be equally obvious and easy to act in accordance with.

Co-creation is not a brand-new phenomenon; nevertheless, it represents a radically new definition of what constitutes value to consumers. From a business and innovation angle, co-creation is interesting not because everything has to be or will be co-created in the future, but because co-

creation is tapping into the collective experiences, skills and ingenuity of consumers around the world, and thus provides companies with valuable information. As such co-creation *could* look like a complete departure from the inward looking, company-versus-consumer innovation model that still is common in companies all over the world.

In the literature, co-creation is described as a phenomenon, which started out several years ago with enthusiastic amateurs, who for example wanted a bike that could be ridden off-road. The amateurs created the mountain bike themselves, and later on it was put into production (von Hippel, 2005). Enthusiastic users also developed equipment for kite surfing. As the existing kites did not meet the needs of the super users, they themselves developed new and better kites. On the Internet these super qualified users exchanged drawings and models and software for rapid prototyping and developed new super kites (von Hippel). Eric von Hippel's point in his notion about *the lead-user* is that kite manufacturers should ask these super users to help innovate their products, and the result would be better kites for the company, the super users as well as other users.

The above-mentioned examples illustrate, how co-creation started from real life needs and wants, furthermore, von Hippel notes that the Internet had an enormous influence. The Internet enables knowledge sharing and provides access to sophisticated computer programs, which is pushing forward democratisation of innovation, co-creation activities, and open source innovation; an obvious example is Wikipedia (www.wikipedia.com). In that sense, the Internet as a medium gives people a voice and calls upon open source and democratic innovation. Additionally, the Internet gives people agency, a capacity to act rhetorically as co-creators as they have a genuine interest in developing a specific item or feature. The problem seems to arise when researchers, designers and especially business leaders seek to develop this autonomous and self-directed group activity into a new way of *running* innovation. It is essential to acknowledge the difference between co-creation evolved from a self-directed group activity and co-creation evolved from an organisation.

According to Richard Normann co-creation will be an essential part of the future for organisations. Normann claims that we are moving towards what he calls *the real revolution* (Normann, 2001). The influential business researcher accounts for his radical view in his book *Reframing Business*. He argues that we are moving beyond the industrial paradigm with a focus on the production of goods and services being *pushed* into a market with consumers acting as passive receivers of the goods. In recent years, companies have moved into a kind of in-between position where the central concern is about *relations* as seen in service and service management (according to the service-dominant-logic by Stephen L. Vargo and Robert F. Lusch (2004)). Customer relation management has become a central issue as customers are regarded as a source for information, ideas, needs, etc. In turn, we are now, according to Normann, facing the real revolution – the absolute opposite to the industrial paradigm – where the customer is regarded as co-producer involved in the creation of value.

The conflicting perspectives on co-creation

In the move from the industrial paradigm into this new paradigm with customers involved in value creation, *users* have been brought into focus. Likewise, *user centred innovation* has become the dominant paradigm of the past decade and *users as co-creators* has become a popular term both in the field of design and the field of business. Unfortunately, different and confusing understandings of co-creation are ruling. A crucial point of difference is, whether you regard the user as a *subject* or as a *partner*. In the business field there is a tendency to regard the user as a subject – C. K. Prahalad and Venkat Ramaswamy, (2004) represent this approach and so does von Hippel's notion about *the lead user*. In contrast, research in the field of participatory design often represents the user as a partner. These two different approaches stem from the different paradigms. Co-creation originally evolved as a self-directed autonomous group activity where users were creating values together, like the above-mentioned kite surfers. Business leaders saw this activity as a new and interesting way to innovation. Business researchers predict co-creation to be the future and some bring special details like Prahalad and Ramaswamy declaring *empathic dialogue* to be one of the building blocks of co-creation (Prahalad & Ramaswamy). However, these authors do not

leave any explanation on *how* to obtain co-creation or indeed empathic dialogue. This results in a huge demand for tools, methods and instruments for facilitating these user-involving processes.

Roberto Verganti claims design is in its heyday. As opposed to organizations, designers are users themselves, thus, they are empathic to user needs and wishes and seem to possess the capacity to provide insight knowledge about co-creation and its use. In the field of participatory design and co-creation, an increasing amount of different tools, methods and projects testify not only the designers' interest in co-creation, but also their ability to get close to users (Verganti, 2009). Figure 1 gives an overview of the different approaches and related tools and methods in the fields *led by research* and *led by design*, respectively.

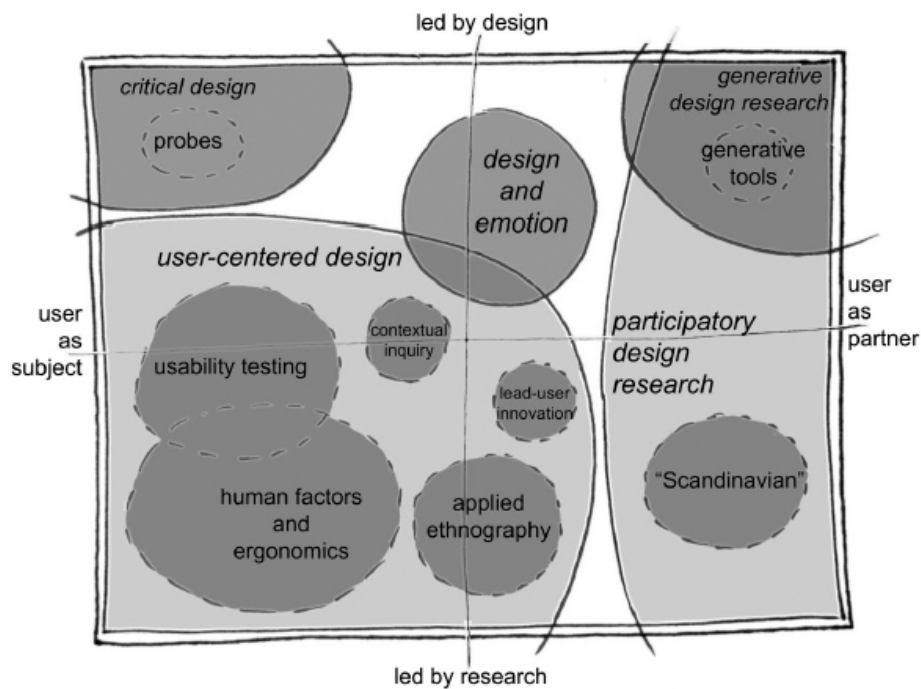


Figure 1: Current landscape of human-centred design research as practiced in design and development of products and services (from Sanders & Stappers, 2008, 2).

The rapidly growing research in the led by design field indicates a huge interest in co-creation and an eagerness to meet the demands from the business field in terms of providing tools and methods to unlock the creativity of costumers and pave the way for innovation and future business.

We are aware, researchers and practitioners will claim they have conducted plenty of successful co-creation projects – even when these projects have been conducted only at the outer edges of the companies' value chains, and also when they have only resulted in refinements of existing products or services. We consider this type of co-creation to generate user insights and not to be *real* co-creation with users as partners. The high expectations for the innovation potential of co-creation in business as well as design have yet to be met. Whereas the user insights may contribute to incremental innovation, we have failed to find evidence of radical innovation based on user-driven-innovation or co-creation sessions. A subtle reason for this could be rooted in the human psychology and the notion of *fixation*.

The notion of fixation

One of the obstacles to come up with new and innovative ideas is that human beings are creatures of habit. Speaking of innovation and design, we often refer to the notion of *thinking out of the box*, which is

in fact much more difficult than it sounds. Thinking out of the box means mentally divert from familiar paths or patterns, often however, our way of thinking remains fixated inside the already known framework the proverbial box.

Originating in gestalt psychology, the notion of fixation has become a subject of special interest in experimental cognitive psychology to understand innovation and creative problem solving (cf. Purcell & Gero, 1996). Fixation or fixedness is a general psychological phenomenon that in simple terms stems from the nature of human information processing, which is inherently selective and thus connected to our decision-making abilities. This is of great value to our everyday life as the cognitive system prevents information overload, however, this selective aptitude can be a hindrance to creative problem solving. Fixation is a familiar occurrence in design process and is to designers often “experienced as a premature commitment to a particular problem solution” (Purcell & Gero, 364). In a seminal paper from 1991 entitled *Design fixation*, David G. Jansson and Steven M. Smith introduce a possible definition of design fixation as: “A blind adherence to a set of ideas or concepts limiting the output of conceptual design, [that] is a measurable barrier in the conceptual design process” (Jansson & Smith, 1991, 3). This is a simple and comprehensible description of a complex and difficult to explain cognitive function. Within the context of this paper, the full complexity of fixation and related cognitive workings cannot be addressed, for an in depth discussion, we refer to two recent papers by Edward Chronicle, James MacGregor and Thomas Ormerod (2002; 2004). For our purpose, we find it useful to present three cases of fixation; two from the experimental psychology literature, and one from our own design research.

Case 1: The two-string problem

Experimental psychologists have studied fixation in problem solving processes since the 1930s. A classic study from this period is Norman R. F. Maier's *two-string problem*. In the study, volunteer subjects were placed individually in a large room with two long cords hanging from the ceiling, and each subject was presented with the problem of tying together the ends of the two strings (cf. Maier, 1931). However, the cords hung so far apart, that it was impossible to hold onto one string and reach the other. In addition to the cords, the room was furnished with a number of objects, among them were poles, a pair of pliers, clamps, tables and chairs, and the subjects were told they were free to do or use whatever needed to solve the problem.

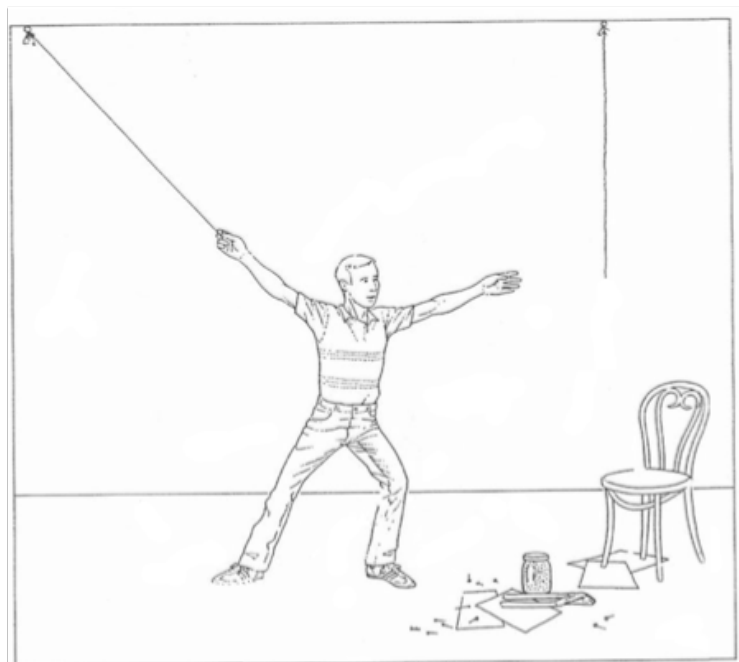


Figure 2: The two-string problem, illustrating the impossibility to hold onto one string and reach for the other (after Maier, 1931, 181-194).

The two-string problem experiment had several possible solutions, one of which was using the pliers to grab onto one of the strings and make it work as a pendulum weight, thus making it possible to hold onto one string and capturing the other as it swung by. However, such a use of pliers is unusual, and what Maier observed was that many subjects found it difficult to see beyond the usual function of the pliers and employ them in a new way to solve the problem at hand. The subjects experienced a type of fixation in problem solving termed *functional fixedness*, which characterizes a restriction in one's handling of an object to previous encountered functions of similar objects (Jansson & Smith; Purcell & Gero).

Case 2: The eight-coin problem

A recurrent topic of interest in the experimental psychological literature is the question of insight in problem solving. The insight process is somewhat a mystery and it has proven difficult to determine what exactly constitutes an insight problem (Chronicle et al., 2004). However, recent literature argues that for insight to occur in problem solving activity, it requires "removal of one or more unnecessary constraints imposed upon the problem solver upon the actions that they take in attempting to solve the problem" (Ormerod et al., 2002, 791). In the experimental psychology literature there are many variants of insight problems, a novel example of an insight problem is the *eight-coin problem*, designed by Chronicle, MacGregor and Ormerod (Ormerod et al.). Basically, the eight-coin problem presents a subject with a configuration of eight coins, which through a number of specified moves must be transformed into a new configuration, where each coin touches exactly three other coins.

The constraints of the problem are embedded in the initial configuration, which is presented as two-dimensional. This restriction creates a fixation. The primary insight needed to solve the problem is to perceive the configuration as three-dimensional, which allows the subject as well to move the coins in three dimensions (cf. Ormerod et al.).

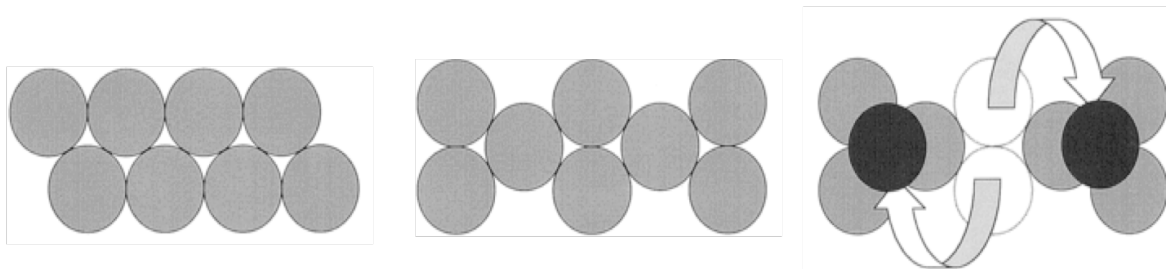


Figure 3: A configuration of the eight-coin problem and the two moves to create the new configuration, where each coin touches exactly three others (after Ormerod et al., 2002, 793).

Fixation can be associated with a wide range of information processing biases that lead to selective attention to a problem. Whereas Maier's two-string problem revealed a bias related to our perception and use of objects, the eight-coin problem illustrates a bias, related to the perception of the constraints in a given context – if perceived as two-dimensional, movement in the context is perceived to be restricted to two dimensions. For most subjects, the selected strategy for solving the problem adheres to the initial representation of the problem; however, to actually resolve the problem, a restructuring or re-encoding of the representation must occur.

Case 3: Experiences from co-creation sessions in a bank

In her research conducted at a small savings bank headquartered in the Danish town of Middelfart, Kirsten Bonde Sørensen included experiments that mixed probes from the critical design approach with generative tools from the generative design research (cf. Gaver, Dunne & Pacenti, 1999; Sanders, 2008).

People's private economy is often considered a personal and somewhat intimidating issue, which Sørensen experienced in her first creative sessions. This led her to experiment with a mixture of probes and generative tools. She ended up making a box filled with different creative tasks just like the probe, but instead of sending it to the participants, she experimented with inviting people in groups to a *neutral* room or conducting the creative session with the participants in their private homes. In her approach, she considers the tools to be generative and the user to be a dialogue partner.

In the creative experiments, different themes were used in order to ask people about their needs and wishes for a future bank. The answers were dominated with suggestions and ideas in the category *more of what we already have*. People responded with statements like "closer contact to my financial advisor", "extended openings hours", "better rates", etc. When suggesting the bank could offer a new special banking service, a *saving coach* for people with financial problems, most of the participants, who responded positively to the idea, were the ones who had seen the Danish television show: *The luxury trap* (in Danish: "Luksusfælden") – a television show with two professional financial consultants helping out families struggling with their ailing economy.

The creative experiments illustrate an important weakness in user studies: people often are fixated in what they already know. As Alberto Alessi claims: "There is a way of doing design that is giving people what they ask, which is never something innovative", (quoted in Verganti, 2009, 48). Sørensen discovered no radical ideas about a future bank in her experiments. Instead, she got inspired by the way the generative tools were working, as people actually got more aware of their relation to money, their private economy and their bank. As such the creative sessions served as an inspiration for a designer to develop a new type of customer service in a bank.

As part of a design research or design investigation into the bank's services, the creative sessions resulted in the prospect of developing new meaning in banking business with costumers being offered a way to obtain greater awareness about values – and economy – in life. Asking the participants about this, they did not know how to react, saying: "But is it possible to do this in a bank?" or "I cannot imagine doing this in a bank". These expressions underpin Verganti's claim: "If a company tests a breakthrough change in meaning by relying on a typical focus group, people will search for what they already know" (Verganti, 2009, 49). Sørensen's creative experiments with bank costumers become a real-life example of how difficult it is to think out the box and how biases can produce fixation. As noted earlier, human beings are creatures of habit. Most of us have a very conventional perception of what bank is, how bank business is conducted and which services a bank provides. The participants in the experiments were restricted by these conventions, they fixated on already known paths or patterns to express their needs and wishes as well as their take on new ideas for a future bank.

Co-creation as fixation

As noted above, the rapidly growing research field of co-creation can be seen as an indication of a huge interest in co-creation and a readiness in designers to respond to the demands from the field of business. But the success in the designers' amazing capacity to get close to users, understand their needs and generate ideas creates new challenges.

Businesses generally think about design and designers from two perspectives: the first, and very traditional one, is styling. Designers are asked to make products look nice (cf. Richard Buchanan's 1st order of design: *symbols*; Buchanan, 2001). The second, and more recent one, is user-centred

design. As Verganti stresses, first styling and then user-centred design are perceived as vehicles, by which companies differentiate themselves from the competition. Analysts claim that design in these ways makes a difference (Verganti). Today, almost no company would dare release a product without caring about style and analyzing user needs. However, there is more to design and innovation, which begs the question: Are user studies and co-creation actually contributing to innovation or has the idea that they do become a fixation for business and design?

If businesses are not aware of how users use their products, co-creation sessions can bring insightful knowledge when developing better products, but as a way of obtaining radical innovation, they seem to be of little value. As the case with co-creation sessions in a bank showed, it was difficult for the participants to let go of the conventional perception of what a bank is and does and imagine new types of bank interactions and services. Verganti claims that user-driven innovation and co-creation can only bring incremental innovation (Verganti, 2009). To obtain radical innovation, we need to think out of the box and not be fixated into something we already know. In that sense, user-driven innovation and co-creation may actually be putting a brake on radical innovation. Whereas users may have difficulties with thinking out of the box, business leaders have difficulties in changing their perception of users as subjects. Yet, they continue to put their trust in co-creation, user studies and user-driven innovation enabled by designers, developing the requested tools and methods. And in that sense, co-creation, user studies and user-driven-innovation have become a fixation both for business leaders and designers.

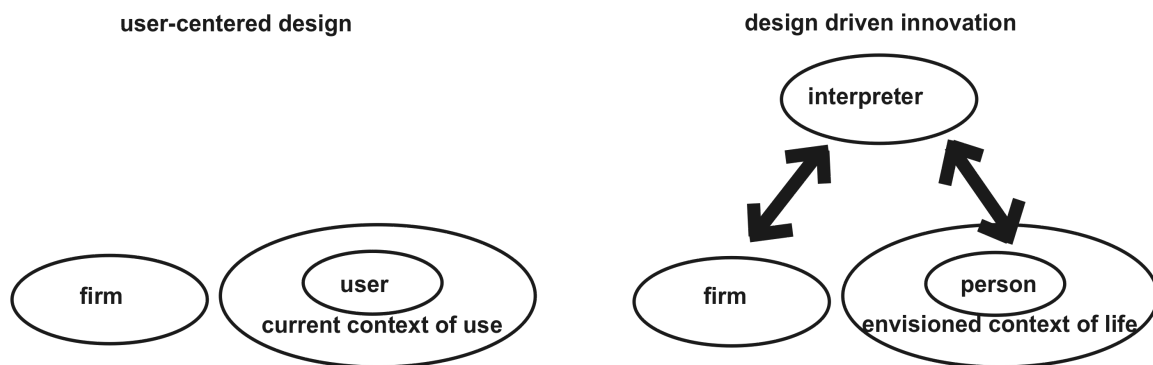


Figure 4: User-centered design versus design-driven innovation (after Verganti, 2009, 118)

Design driven innovation instead of co-creation

For this paper we have been very inspired by the business professor Roberto Verganti. In his recent book *Design Driven Innovation* he gives designers a well-deserved wake up call. He claims that designers at present design in accordance with a “codified, predictable, and mandatory process – making it more digestible for executives educated in traditional management theories” (Verganti, 2009, p.xi) He predicts the consequences of doing so are that designers lose their ability to do forward looking research.

As co-creation brings only incremental innovation, we contend that the *real* success to co-creation lie in the very perspective of the designers, the design thinking, the thinking out of the box, which t is crucial to obtain radical innovation. Verganti claims *design-driven innovation* to be the way to radical innovation. He defines design driven innovation to be about *meaning innovation*, which means understanding, anticipating and influencing the emergence of new product meaning. The

way to do this goes through “a broader, in-depth exploration of the evolution of society, culture and technology” (Verganti, xi).

The original meaning of design also goes back to the latin “de” plus “signare”, which means making something, distinguishing it by a sign, giving it significance and designating its relation to other things, owners, users or gods. Based on this original meaning, one could say: Design is making sense (of things) (cf. Krippendorf, 1989).

The meaning that a user gives to a product depends on her/his cognitive model, which in turn is significantly affected by her/his inner socio-cultural context. Proposing new product meaning therefore implies understanding the inner dynamics of socio-cultural models, beyond what is explicitly visible. The shaping of socio-cultural models and their impact on the interpretation of product languages depends on millions of unpredictable interactions between users, firms, designers, products, communication media, cultural centers, schools (Verganti, 2009).

In his study of some of the successful Italian design companies such as Alessi or Artemide, Verganti found that their innovation process hardly ever starts from close observation of user needs. Instead, they follow a different strategy, which he calls design-driven innovation – a strategy that aims at “radically change the emotional and symbolic content of products (i.e. their meanings and languages), through a deep understanding of broader changes in society, culture and technology. Rather than being pulled by user requirements, design driven innovation is pushed by a firm’s vision about possible new product meanings and languages that could diffuse in society” (Verganti, 2008, 436).

Alessi and Artemide can be considered to create radical innovation in their respective markets. It is a common perception, that the world needs radical innovation and subsequently, there is a need for radical designers and radical researchers. These are, according to Verganti, experts who envision and investigate new product meanings through a broader in-depth exploration of the evolution of society, culture and technology. Radical designers and researchers are not asking people about what they want. So Verganti’s point is to make designers stop customizing design and making it digestible for managers educated in traditional management theories.

Looking back at the Sanders and Stapper’s mapping of participatory design, we could identify different conflicting perspectives: a business approach considering the user as a subject and a design approach thinking the user as a partner. Thinking *the user as a partner* is crucial and the only way to *real* co-creation, but in the field of business, co-creation is reduced to user inputs and the customers, users, *co-creators* or whatever they are called, will always remain a *customer*, buying products or services. The traditional business perspective is fixated into an image of an organisation, producing something to be sold to customers or users outside the organisation. From this perspective co-creation is a tapping into the brains of the customer in order to get more information about him or her to be transformed into better selling products, but this is not co-creation. Co-creation implies equality; co-creation is the kite surfers doing an autonomous and self-directed group activity. The problems in co-creation arise when business leaders seek to transform this autonomous and self-directed group activity into a new way of *running* business innovation. You cannot run innovation in that way, and you cannot expect users to contribute radical ideas, but you can start regarding users as your partners and appeal to their interest in a certain issue. This is the design approach. In their heart designers know that, but in their eagerness to meet the requests from business leaders, they seek to develop new tools, methods and instruments for co-creation sessions within a fixated business framework. This is what Verganti called the “codified, predictable, and mandatory process” that makes design more palatable to business leaders educated in traditional management theories.

Designers seem to forget that the idea about the practice of collective creativity has been present in the design field for at least 40 years! Yet in business literature, books about co-creation have become bestsellers and are considered to contribute absolute new insights (e.g. Normann, Prahalad & Ramaswamy), but the idea about collective creativity was presented at the very first international conference by the Design Research Society in Manchester in 1971 and was simply entitled: *Design Participation* (DRS history website; Sanders & Stappers, 2008). *Participatory*

design was the terminology used until the recent fixation on what is now called co-creation. Before co-creation, participatory design was a common practice in design and design research in Europe, in particular in Scandinavia (cf. Sanders & Stappers, 2008). The designer has never been far removed from the user. Just take a look at a Charles Eames sketch on the design process from the 1969 exhibition *What is design?* at Musée des Arts Decoratifs in Paris.

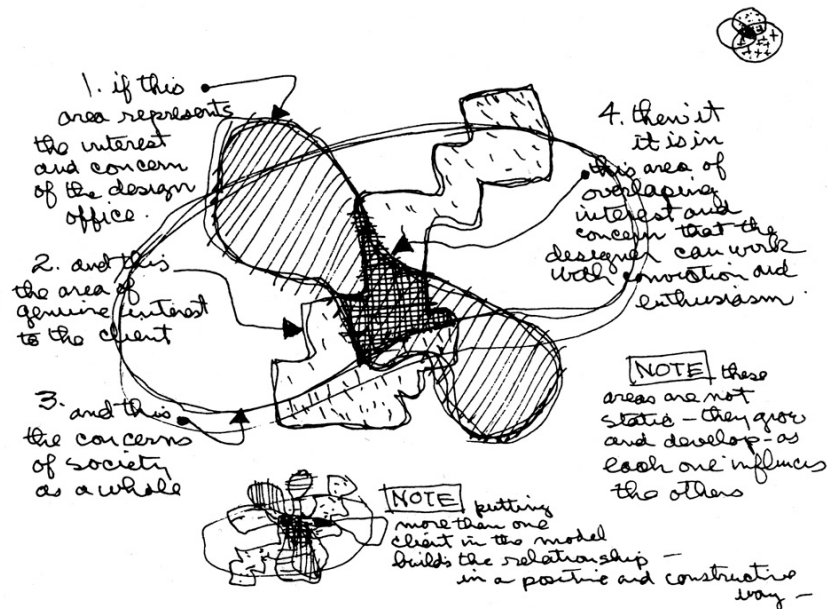


Figure 5: Charles Eames: What is design? (from Eames, 2002, inside front cover).

In his mapping of the design process, Eames considered design to be a dynamic activity consisting of four areas influencing each other noted in the diagram: *The interest and concern of the design office*, *the genuine interest to the client*, *the concerns of society as a whole*, and finally the area of *overlapping interest and concern that the designer can work with conviction and enthusiasm*. In Eames's notes he underlines that "these areas are not static, but grow and develop as each one influences the others," and furthermore, he writes next to the thumbnail model: "Putting more than one client in the model builds the relationship in a positive and constructive way" (see fig. 5). Eames saw design not as something removed from the user (the client) or society, but as something created in dynamic relationship with the user and society. The drawing testifies to the fact that Eames was thinking of design process as a process in line with Verganti's ideas about designing in a socio-cultural context.

According to Richard Buchanan's mapping of the development of design, designers are moving from a first level focus on *images* or *symbols* onto *things* and later *services* and finally to the fourth level, which related to action, but focused on *the environment and systems within which action takes place* (cf. Buchanan). This is the level of *thought*, since it is fundamentally concerned with the organising idea of principles that operate behind environment and systems, i.e. human systems, Buchanan explains. Designers in this field can be seen as facilitators of organizational processes. They are capable of organising "conversations and debates about the values of a community and how those values may be implemented with productive results" (Buchanan, 2001, 202).

The different examples of Verganti, Eames and Buchanan should remind designers not to leave their own perspective behind in their keenness of meeting the demands of business. The design

perspective is a precious asset and includes the ability of bringing new and useful insights to create new meaning.

A meeting between two opposite paradigms

What happens when design thinking meets management thinking? The field of *design management* is about the integration of design into management and vice versa. Talking about co-creation from a design perspective versus a business perspective, it seems relevant to look into the field of design management. The design management field is only a few decades old, whereas the management discourse is about hundred years old and the design discourse about half of that. In their paper 2008 *Towards a better paradigmatic partnership*, Ulla Johansson and Jill Woodilla uses the well known framework on sociological paradigms by Gibson Burrell and Gareth Morgan (1979) to illustrate the paradigmatic differences between management discourse and design discourse. The authors problematize the way knowledge from design merges with knowledge from management – a kind of rigid partnership between design and main-stream management research (Johansson & Woodilla, 2008).

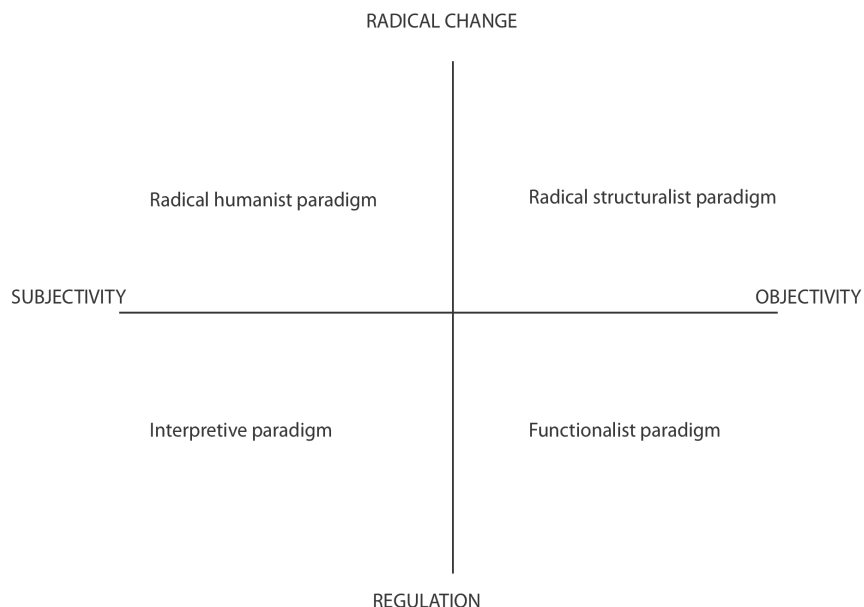


Figure 6: Burrell and Morgan divides management history into four social paradigms (after Johansson & Woodilla, 2008, 7).

The field design management was expected to bridge design and management and consequently be represented in all areas; however, this has not been the case. In fact, the field of design management is only represented in the functionalist paradigm, relying on objectivity and regulation as foundational assumptions. From a design perspective this is somewhat problematic, claim Johansson and Woodilla, because design thinking is being differentiated from rational, analytical processes, rather than being defined as a holistic way of creating something new and unanticipated: “Management most often lacks sufficient knowledge about design to take advantage of the strategic potential that design promises. As a consequence, research is most often of a normative and prescriptive character” (Johansson & Woodilla, 2008, 16).

Conclusion: Designers need to take the lead

From a business perspective co-creation may look like an easy and accessible way towards innovation, unlocking the creativity of the customers and letting their creativity be part of the development of the future business. Different understandings of co-creation result in co-creation often being reduced to user inputs used for improvements or incremental innovations. In fact, co-creation brings enormous challenges.

Borrowing a term from cognitive psychology, we argued that co-creation has created a *fixation* among businesses and designers, where the strong focus on the innovative potential of users as co-creators paradoxically has become an obstacle for both radical innovation and co-creation.

We think it is about time to *reframe design* (and business), to think about the future role of the designers, to think out of the box and not fixate on user studies, as they may already be the paradigm of yesterday. When business researchers as Normann speak about *reframing business* and turning business organisations into value creating systems the job requires a total different look at business organisations, which is not limited to – and fixated in – a traditional organisational perspective. But as long as business leaders are the ones to decide, co-creation activities will mainly result in user inputs or value creation at the outer edges of the value chain.

Verganti brings a refreshing and to some maybe also a provocative point of view into the field of design. We are inspired by both Verganti and Buchanan, but also the designers and design researcher who developed the idea of participatory design (now called co-creation) back in the early 1970, including Eames, who back in 1969 sketched a design process in line with Verganti's contemporary idea of designing in a socio-cultural context.

Design history shows designers have the holistic perspective and the possibilities of bringing useful insight. Design thinking both stems from a humanist paradigm and represent an abductive way of reasoning that makes designers think in a radically different way and far removed from traditional causal reasoning in business.

The intention of this paper is not to belittle business leaders and managers, but to remind designers and business leaders that we need to prepare the ground for meetings and exchanges of meaning and ideas *between* the two different paradigms, both the business oriented functionalistic paradigm and the designers humanist oriented paradigm. Right now the functionalistic paradigm is dominating the discourse and unfortunately there is a tendency for designers to seek only to meet the demands from business leaders in terms of providing tools and methods.

We hope to stimulate the discussions and to encourage a reframing of design and the designers' image as practioners who do more than user studies or beautiful styling of products. Radical designers and researcher do not give the business leaders what they want – radical designers and researchers offers a totally different perspective and a fundamentally different way of reasoning and that is why they truly have the capabilities to reframe business.

References

- Buchanan, R. (2001). Design and the New Rhetoric: Productive Arts in the Philosophy of Culture. *Philosophy and Rhetoric*, 34(3), 183-206.
- Buchanan, R., & Margolin, V. (1995). *Discovering Design. Explorations in Design Studies*. Chicago: The University of Chicago Press.
- Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organizational analysis: Elements of the sociology of corporate life*. London: Heinemann.
- Chronicle, E. P., MacGregor, J. N., & Ormerod, T. C. (2004). What Makes an Insight Problem? The Roles of Heuristics, Goal Conception, and Solution Recoding in Knowledge-Learn Problems. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 30(1), 14-27.

- Eames, D. (2002). *Eames Sketchbook*. San Francisco: Chronicle Books.
- Design Research Society – History*. (n.d.) Retrieved January 23, 2010, from <http://www.designresearchsociety.org/joomla/content/view/14/28/>.
- Gaver, W., Dunne, T., & Pacenti, E. (1999). Cultural Probes. *Interactions*, 6(1), 21-29
- Gaver, W., et al. (2004). Cultural Probes and the value of uncertainty. *Interactions*, 11(5), 53-56.
- Johansson, U., & Woodilla, J. (2008). Towards a Better Paradigmatic Partnership Between Design and Management. *DMI Educational Conference: Design Thinking – new challenges for designers, managers and organizations*, ESSEC Ecole de Commerce, Paris, April 14-15.
- Krippendorff, K. (1989). On the Essential Context of Artefacts” or on the Proposition that “Design Is Making Sense (of Things). *Design Issues*, 5(2), 9-39.
- Maier, N. R. F. (1931). Reasoning in Humans. II. The solution of a problem and its appearance in consciousness. *Journal of Comparative Psychology*, 12(2), 181-194.
- Mintzberg, H. (2009). Foreword. In Normann, R., *Reframing Business: When the map changes the landscape*. Hoboken NJ: Wiley, ix-xii.
- Normann, R. (2001). *Reframing Business: When the Map Changes the Landscape*. Hoboken NJ: Wiley.
- Ormerod, T. C., MacGregor, J. N., & Chronicle, E. P. (2002). Dynamics and constraints in insight problem-solving. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 28(4), 791-799.
- Prahalad, C. K., & Krishnan, M. S. (2008). *The New Age of Innovation, Driving Cocreated Value Through Global Networks*. New York: McGraw Hill Books.
- Prahalad, C. K., & Ramaswamy, V. (2004). *The Future of Competition, Co-creating Unique Value with Customers*, Boston: HBS Press.
- Purcell, T., & Gero, J. S. (1996). Design and other types of fixation. *Design Studies*, 17(4), 363-383.
- Sanders, E. B.-N. (2008). An Evolving Map of Design Practice and Design Research. *Interactions*, XV(6), 13-17.
- Sanders, E. B.-N. (2006a). Design Research in 2006. *Design Research Quarterly*, 1(1), 1-8.
- Sanders, E. B.-N. (1999). Postdesign and Participatory Culture. *Useful and Critical: The Position of Research in Design* (UIAH Conference), September 9-11, Tuusula, Finland.
- Sanders, E. B.-N. (2006b). Scaffolds for Building Everyday Creativity. In Frascara, J. (Ed.), *Design for Effective Communications: Creating Contexts for Clarity and Meaning*. New York NY: Allworth Press, 65-77.
- Sanders, E. B.-N. (2006c). Design Serving People. In *Cumulus Working Papers Copenhagen. Publication Series G*. Helsinki: University of Art and Design Helsinki, 28-33.
- Sanders E. B.-N., & Stappers, P. J. (2008). Co-creation and the New Landscape of Design. Retrieved September 12, 2009, from http://www.maketools.com/pdfs/CoCreation_Sanders_Stappers_08_preprint.pdf.
- Sanders, E. B.-N., & Stappers, P. J. (2003). Generative tools for context mapping: tuning the tools. *The Third International Conference on Design & Emotion*. Loughborough: Taylor & Francis, 77-81.
- Schön, D. (1991 (1983)). *The Reflective Practitioner: How Professionals Think in Action*. Farnham: Ashgate.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a New Dominant Logic for Marketing. *Journal of Marketing*, 68(January), 1-17.

Verganti, R. (2009). *Design-Driven Innovation. Changing the Rules of Competition by Radically Innovating What Things Mean*. Boston: Harvard Business School Publishing Corporation.

Verganti, R. (2008). Design, Meanings, and Radical Innovation: a meta-model and a research agenda. *Journal of Product Innovation Management*, 25, 436-456.

Visser, S. F. (2009). *Bringing the every day life of people into design* (Ph.D. thesis). Delft: Delft University of Technology, De Nieuwe Grafische. Retrieved January 18, 2010, from <http://studiolab.io.tudelft.nl/static/gems/sleeswijkvisser/sleeswijkthesis.pdf>.

von Hippel, E. (2005). *Democratizing Innovation*. Cambridge MA: MIT Sloan School of Management. Retrieved January 11, 2010, from <http://web.mit.edu/evhippel/www/books.htm>.

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