

Das in dieser Tradition stehende, gegenwärtig in den USA sich zunehmend verbreitende Modell des Community Design allerdings scheint von solchen grundsätzlichen Fragen nach der eigenen systemischen Funktion innerhalb der herrschenden Umstände wenig berührt zu sein. Ebenso wie die Anwaltsplanung an Hochschulen und von einzelnen engagierten Architekten- und Planergruppen praktiziert, versucht Community Design ärmere Bevölkerungsschichten mit planerischem Wissen zu unterstützen und partizipative Planungsansätze umzusetzen.⁷⁴ Ihr ungezügelter und wohlmeinender Pragmatismus läuft jedoch Gefahr soziale Konflikte lediglich partiell zu befrieden und so euphorisiert durch einzelne gute Taten die Ursachen und Zusammenhänge von Ungerechtigkeit zu verschleiern.⁷⁵ Dieses Defizit in puncto Selbstreflexion und das Fehlen einer ebenso grundlegenden wie konkreten Kritik an den gesellschaftlichen Rahmenbedingungen von Planung macht heute eine weitergehende Beschäftigung mit der Theorie, Geschichte und Kritik der Anwaltsplanung als politisches Beteiligungsmodell auch für die Praxis umso wichtiger.

⁷⁴ Vgl.: *An Architektur*, Nr. 19–21. Community Design. Involvement and Architecture in the US since 1963, Berlin 2008.

⁷⁵ Vgl.: Bryan Bell: *Good Deeds, Good Design, Community Service Through Architecture*, New York 2003.

Perspectives on Participation in Design

Elizabeth B.-N. Sanders

Is Participatory Design (PD) a collection of tools and techniques, a set of methods or is it a mindset? To answer that question, I'll start by addressing some preliminary questions.

- What is PD and why is the interest in PD growing now?
- What are the diverse perspectives on participation in design relevant today?
- Who are the participants?
- Where in the design development process does participation take place?
- And how is PD practiced?

What is participatory design?

Participatory Design (PD) refers to the activity of designers and people not trained in design working together in the design and development process. In the practice of PD, the people who are being served by design are no longer seen simply as users, consumers or customers. Instead, they are seen as the experts in understanding their own ways of living and working. They are seen as valuable partners in the design and development process. This mindset contrasts with a user-centered mindset that recognizes researchers and designers as being the experts and relegates the people being served by design to be the research subjects and/or the recipients of the designed object.

PD has been practiced for nearly 40 years in northern Europe where early PD research projects focused on the participation of future users in systems development. In Scandinavia, the Collective Resource Approach was established to increase the value of industrial production by engaging workers directly in the development of new systems for the workplace. This approach put together the expertise of the systems designers/researchers and the situated expertise of the people whose work was to be impacted by the

change. The approach built on the workers' own experiences and provided them with the resources to be able to act in their current situation and imagine their future situation. This perspective on PD and the collective mindset continues to be proactively researched in the Scandinavian countries today.

More recently, PD has been gaining attention worldwide and is being applied in the design development of consumer, industrial, and medical products and services. Product manufacturers and service providers are beginning to change their perceptions about the people previously known as customers, consumers and users. All kinds of people are now playing a more proactive role in the design and development of new products and services.

Another way that the participatory approach has been described is that it is »human-centered«, respecting people as experts and not just as being representatives of the roles they play from the business perspective, i.e., customers, consumers and users. The PD approach is also referred to as »co-designing« and »co-creation«, particularly in the United States. As we will see, these terms refer to a wide range of methods and activities that do not always match the participatory mindset from which the approach originated. For example, co-creation is often used as a marketing concept and refers to an approach for generating and sustaining brand loyalty. So looking at PD (and including the related approaches referred to as human-centered design, co-design and co-creation), we see a very wide range of goals to which it is put to use, mindsets with which it is practiced and contexts within which it is being practiced today. Consequently, there is not a lot of agreement about what PD is.

Why is the interest in participatory design growing now?

Consumerism has reached a tipping point. Starting in the 1960's, consumerism grew, leading to conspicuous consumption which has been growing ever since. Conspicuous consumption has resulted in many unsustainable products and practices. In fact, many consumers are not even aware of or are confused about the negative environmental impacts of their behavior. Consumerism has also led to a preoccupation in the business sector with innovation at all costs.

Fortunately, a countermovement to this pattern has recently become evident. First, the recession has made it abruptly and abundantly clear that continuous conspicuous consumption can no longer be maintained. And at the same time we see that many people are seeking ways to be socially and environmentally res-

ponsible. They are finally starting to take social responsibility seriously. This is true for individuals as well as for large established corporations.

Other manifestations of change can be seen at the intersection of design and business, such as the recent interest and enthusiasm in what is called »design thinking«. Design thinking is already of such interest that business schools at universities around the world are attempting to revamp their curricula to meet the needs of business students who do not want to play the »business as usual« game.

Yet another manifestation of change in design is the rise of creative activity seeking by everyday people. This can be seen in the growth of the DIY (do-it-yourself) industry and the resurgence of crafting at all levels. The rise of social networks and other means of online sharing have contributed widely to this phenomenon. The rise of creative activity seeking by everyday people may be a reaction against the overemphasis on consumption over the past 50 years.

The internet, and the social networks in particular, are making it possible for all people to take a more proactive role in the ideation, innovation, design and delivery of products and services. Younger people are particularly open toward and embracing of co-designing. Generation Y, in particular, are wonderful students and practitioners of participatory designing since their worldview places high value on participation and collaboration. Co-designing will flourish in the future as more young people take on increasingly more influential positions within organizations and communities. Social media will help. The rise of social media is giving a voice to all people and is helping to bring communities together, which will propel the evolution of participation in designing.

The growing interest in PD is coming from many different perspectives including design, marketing, sales etc. This diversity manifests itself in several dimensions including:

- The people who are involved as participants in the process.
- The point or points along the design development process where PD is taking place.
- The mindset with which participation in design is occurring.
- How co-designing is being practiced.

Who are the participants?

We can see differences in who is involved in the practice of PD. This can lead to confusion when people talk about practicing PD but forget to describe who the participants are and how they are working together.

PD is being practiced within communities. This application of PD is more common in the UK where the government supports the application of this approach to community-wide challenges. PD at the community level is not common in the US at this point in time. However, companies such as IDEO are attempting to get this approach going at a global level with their *www.ideo.org* effort.

PD is being practiced inside companies and organizations. Sometimes it is used as a method to spark the internal innovation process. And in other situations it is the first step in a larger organizational transformation.

PD is being practiced between companies and their business partners. This is perhaps the least common application of PD today. This may be due, in part, to the difficulties in establishing and maintaining the participatory mindset in the business world.

PD is being practiced between companies and the people that the companies serve. This is a very rapidly growing application of PD and the one that will be the focus of this paper. Much of this type of PD is taking place at the tail end of the design development process where it comes under the name of crowd-sourcing, for example. This is the locus of PD that is gaining in popularity most quickly and it is the application that the business community has taken an interest in as will become apparent in the next section. On the other hand, the opportunities for design are even greater in applying PD between companies and the people they serve at the front end of the design and development process.

Where in the design development process does participation take place?

PD takes place in the front end of the fuzzy front end of the design process where it is often not known whether the deliverable of the design process will be a product, a service, an interface, or something else. Here the goal of the pre-design phases is to find the problems to be solved and identify the opportunities to explore. The goal of the discovery phase is to determine what is to be, or should not be, designed and manufactured.

PD is also applicable inside the traditional design development process and on through to the marketing and sales of the product or service. Here the approach is more often referred to as co-design or co-creation. For example, co-creation is now being

used as a method to drive attention to the brand of the product or the service after the sale has taken place.

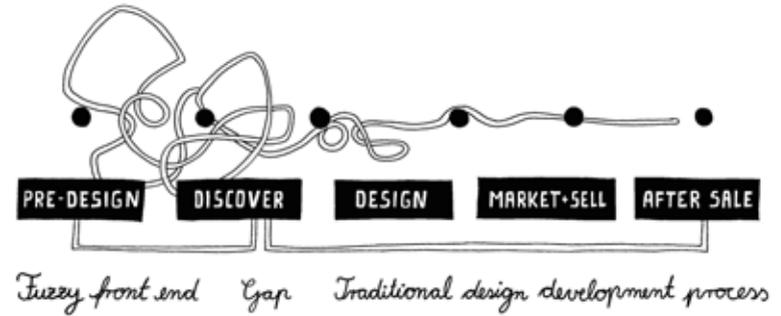


Fig.1: Participatory design is being practiced today at all points along the design development process

In fact, PD is taking place throughout all the stages of the design development process as is shown by the location of the many red dots in Figure 1:

- pre-design: where innovation and opportunity development take place
- discovery: where research and translation to design occur
- design: where exploration, design, and development take place
- marketing, sales and/or distribution: where implementation, roll-out and sales occur
- after sales: where product use and service experience take place

Levels of value in co-creative activities

The methods, tools and activities used in the practice of PD change according to where they are used in the design development process. To better understand why PD looks so different as it is played out across the design development process, it is useful to first consider the levels of value relevant to various PD processes and practices. There are at least three types of value in co-creative activities and relationships: monetary, use or experience and societal. They are described comparatively in Figure 2. The column labeled »people« is the most telling with regard to the mindset that is involved at each level.

The monetary value of co-creation is the one that usually receives the most attention in business circles. Co-creation that results in monetary value is fueled by the desire to make money in new ways, more efficient ways, or in ways that provide sustainable revenues over longer periods of time. With this mindset, people are

thought of and referred to as customers or consumers of goods and/or services. Economic value is based on relatively short-term needs. Further, it is mostly based on transactional metrics of exchange between what the company offers and what the customer consumes and/or experiences. Co-creation associated with monetary value does not necessarily require direct contact between the company and its customers because the conversation can be mediated by tools of information and communication. This can be seen in web-based surveys that ask consumers to select features of choice or the crowd-sourcing of large numbers of respondents to obtain feedback about products and/or services.

	OBJECTIVES	MINDSET	PEOPLE	DELIVERABLES	TIME
MONETARY	Production Consumption Maximization of shareholder wealth	Business Commercial Economic	Customers Consumers	Marketplace results Business advancement Products that sell	Short-term
USE/EXPERIENCE	Positive experiences Personalization Customization	Experience-driven Service orientation	End-users Empowered consumers	Products + services that people need and want	Long-term From life stage to lifetime
SOCIETAL	Improved quality of life Sustainability	Human-centered Ecological	Barriers Participants Owners	Transformation Ownership Happiness	Very long term Over many generations

Fig. 2: A comparison of three levels of value in co-creation

The use/experience value of co-creation is fueled by companies' desires to transform consumers into users so that the products and services they design, produce and sell will better meet people's wants and needs. One could argue that this is directly related to monetary value, but this value extends beyond monetary gain. With this mindset, people are thought of and are referred to as end-users and sometimes as empowered consumers who are able to make choices in the goods and services they buy and use. The experience value of co-creation applies not only to products and services, but also to brands and branded environments.

The societal value of co-creation is fueled by aspirations for longer term, humanistic, and more sustainable ways of living. It supports the exploration of open-ended questions such as »how can we improve the quality of life for people living with a chronic illness?« When working within this context one does not generally have preconceived notions of the outcome since determination of the form of the outcome is part of the challenge. Co-creation of

this type involves the integration of experts and everyday people working closely together. Direct personal involvement between people is needed for this type of co-creation. Multiple divergent points of view need to be expressed, listened to and discussed. With this mindset, people are thought of and are treated as partners or equals in the participatory relationship. Although social networks may be used to help identify and locate the participants, the real work in this form of co-creation favors more personal interactions and conversations.

All three types of value in co-creation are important to understand and develop, and are at times inextricably linked. Societal value can provide use/experience value as well as financial reward. Figure 2 compares the three types of value co-creation by emphasizing their differences.

An interesting pattern

Figure 3 has been made by intersecting the stages of the design development process (from Figure 1) with the three levels of value in co-creation (from Figure 2). Placed on the figure are examples of some organizations that are using PD and/or co-creation at different stages of their design development process. The choice of organizations is not based on an exhaustive search and analysis of all companies. But it does represent a wide cross-section of what is being communicated today by these organizations on the internet and in the press. Each organization is placed according to where they are practicing co-creation and what level their message is conveying.

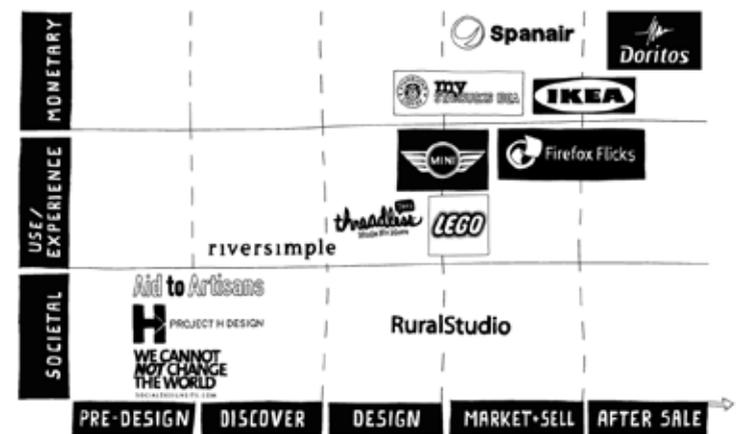


Fig. 3: Organizations position themselves as co-creators at points along the design development process and at various levels of value

An interesting pattern emerges when the types of value intersect the different stages of the design process at which co-creation occurs. Value co-creation with a focus on monetary objectives is more likely to take place later in the design development process, in the design adoption stages such as marketing, sales and distribution. Value co-creation of the use/experience variety tends to take place during the design process, including in the discovery stage. And societal value co-creation is most likely to occur in the very early front end of the design process.

The earlier in the design development process that PD or co-creation occurs, the greater and broader will be the likely impact. Societal value co-creation tends to start at the very early front end, well before any specific concept definition and/or exploration. Unfortunately, design and designers are not usually involved this early in the process. Any user/consumer/customer information is most often based on past experience and metrics. This phase is conventionally held closed by the business entity and this is where the vision and definition is set for what the company experts think should be developed. Moving co-creation from the company to the people it serves into these front end efforts will most likely produce the largest benefit in terms of societal value. Although use/experience value and monetary value may follow, it is often not visible at this stage in terms of a business value proposition.

The shift for companies in seeing their objectives change from designing for people to designing *with* people is profound. It takes many years for the mindset and practices of co-creation between companies and people to permeate and change an organization. Organizational barriers often stand in the way and without support at the highest of levels within the organization, the shift is not likely to occur.

There are a number of prerequisites that are needed to support and open the stage for the practice of co-creation with implications for societal transformation:

- The belief that all people are creative and will participate in a creative process if they are motivated and are provided the tools to do so is essential.
- Diversity is a key driver: if all participants are of the same background, perspective, and opinion, the outcome may be limited and even predictable.
- Joint problem definition, not just joint problem solving, is the driver in the fuzzy front end of the design process.
- Continuous dialogue and conversation, in conjunction with workshops that involve a broad range of stakeholders, are needed.

- The exploration and use of design tools, materials and methods that put all the players on a common ground are needed.
- A focus on experiences, not just on products and services, is needed.
- A focus on the whole of an experience, not just an episode or single touchpoint, is needed.

How is participatory design practiced?

The growing interest in PD has resulted in a large set of tools, techniques and methods. To help to organise the rapidly growing, global collection of tools and techniques for PD, Sanders, Brandt and Binder (2010)¹ have proposed a framework into which all currently documented tools and techniques of PD can be placed. The primary dimension of the framework is described by differences in the 'form' of the tools and techniques for making, telling or enacting. Making refers to tools and techniques for making tangible things. Making tools and techniques used in PD include collages, maps, models and mock-ups that are made by the non-designer participants. Telling refers to tools and techniques that support verbally oriented activities such as talking and explaining. Telling tools and techniques used in PD include diaries, logs and the use of cards for organizing ideas, for example.

Enacting refers to tools and techniques to support and facilitate acting and playing. Enacting activities used in PD include role playing and improvisation, and the tools and techniques of enacting might include props or puppets.

The framework shown in Figure 4 combines the activities of making, telling and enacting and uses each activity to fuel the next. By putting making together with telling and enacting, even people who are not skilled in making can be empowered to express them-

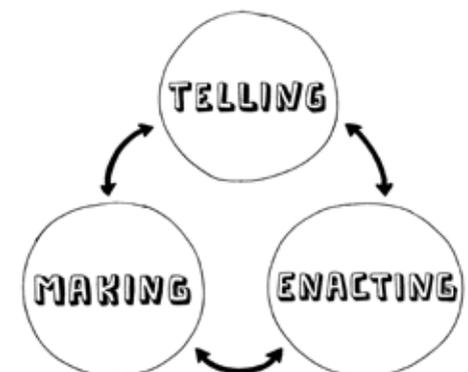


Fig. 4: A framework for practicing participatory design

¹ Sanders, E. B.-N., Brandt, E. and Binder, T. »A framework for organizing the tools and techniques of PD«. In »Proceedings of PDC« 2010. (2011) pp. 195–198.

selves creatively. You can enter the cycle at any point, i.e., by *making* things, or *telling* stories or by *enacting* experiences. And from each entry point, you can move in any direction. You may find yourself going around several times. For example, you may tell a story about the future and then enact it. Then you could make stuff that people would need to live in the story, and enact it again. You may then find that you need to go back and rewrite the story or write a new story.

The three charts that follow position some of the tools, techniques and methods into the three modes of participation in design. The classification is deceptively simple and it looks like each activity fits neatly in one category. In reality the situation is messier than this because some activities fall on the borders between the categories. But the framework is still useful in organizing all the methods, tools and techniques for PD.

MAKING TANGIBLE THINGS
2-D collages using visual and verbal triggers on backgrounds with timelines, circles etc.
2-D mappings using visual and verbal components on patterned backgrounds
3-D mock-ups using foam, clay, Legos or Velcro-modeling
Low-tech prototypes
Provotypes and design artifacts from the future
3-D space models (small scale) such as the doll house toolkit

In making, we use our hands to embody ideas in the form of physical artifacts. There are many ways to do making. The chart above summarizes only the recent applications of making tools and activities that have been published. It is likely that many other applications of making will be published soon as this is an area of interest and growth. The photos show some examples of tools and techniques for making in action.

ACTING, ENACTING AND PLAYING
Game boards and game pieces and rules for playing
Props and black boxes
3-D space models (full scale)
Scenario-making in the space models or through sandplay
Participatory envisioning and enactment by setting users in future situations
Improvisation
Acting out, skits and play acting
Role playing with actors, pretenders, puppets, dolls etc.
Bodystorming and informative performance

Enacting refers to the use of the body in the environment to express ideas about future experience. We also call this pretending. The chart above summarizes only the recent applications of making tools and activities that have been published. The photos show some examples of tools and techniques for enacting in action.

TALKING, TELLING AND EXPLAINING
Stories and storyboarding through writing, drawing, blogs, wikis, photos, video etc.
Diaries and daily logs through writing, drawing, blogs, photos, video etc.
Self observation through photos, video, blogs, writing, drawing etc.
Documentaries and movie-making
Experience timelines or maps
Paper spaces to collect, organize, categorize, reframe, chart and/or make decisions about ideas or concepts through group brainstorming and collective mindmapping.
Cards to organize, categorize and prioritize ideas. The cards may contain video snippets, incidents, signs, traces, moments, photos, domains, technologies, templates and what if provocations.
Voting dots to prioritize ideas.

Telling is a verbal description about future scenarios of use. We might tell a story about the future or describe a future artifact. But telling can be difficult for people who don't have verbal access to their own tacit knowledge. There are many ways to do telling. The chart above summarizes only the recent applications of tools and techniques for telling that have been published. The photos show some examples of tools and techniques for telling used in practice.

Dimensions to consider in making, telling and enacting

The possibilities for the tools and techniques of making, telling and enacting are infinite and the lists continue to grow. However we know enough about the tools and techniques for participation in designing that it is possible to describe some general principles.

Methods and tools for telling, making and enacting vary according to when they will be used in the design development process. As described earlier, the nature of the story, the artifact or the enacted scenario changes from early to later stages in the process. Dreams, visions and experiences are more commonly found early in the design process. Narrative, artifacts and scenarios made later in the process are more likely to resemble the objects, services, and environments that are being designed.

Methods and tools for telling, making and enacting vary according to the level of planning involved. Let's take making for example. People can participate in making activities with very simple and impromptu tools and materials, e.g., paper and pencil, clay or Play-doh, rocks and sticks etc. Or they can be supplied with very carefully planned toolkits to support specific types of making activities. In general, the simple and impromptu approach is quicker to implement but involves the risk that the materials may be too open-ended for non-designers to feel comfortable with. It is also harder to predict how long it will take people working with rough materials to make something and it is usually quite a challenge to analyze the output of the impromptu approach. On the other hand, carefully planned toolkits for making activities take much longer to plan and to prepare but they are far more predictable in terms of the ability of people to use them and the time it takes them to make the artifacts. The analysis of artifacts resulting from planned toolkits is also more efficient and effective than the analysis of artifacts resulting from impromptu toolkits. The risk in using carefully planned toolkits for making is that the creativity of the participants may be hindered if the toolkit components are not sufficiently ambiguous or generative.

Tools for telling, making and enacting vary in terms of materiality. They can be paper-based and two-dimensional with components made from words, phrases, quotes, shapes, photos, diagrams, pictures, sketches etc. Tools for making and enacting can also be three-dimensional and made of wood, foam, clay, fabric, blocks, Legos etc. Actually, any kind of material can be used to support and facilitate making activities. The trick is in providing a variety of components that are open to multiple interpretations and unique combinations but that are not so varied as to be overwhelming or confusing.

Methods and tools for telling, making and enacting vary in how people are put together for their use. On some occasions you will want to invite individuals to participate. This application is preferred when exploring personal experiences, for example, when asking people to tell a story or make a collage that expresses their memories or feelings. On other occasions you will want to invite people to collaborate. This application is especially powerful when exploring future experiences that will be shared. Regardless of whether people make something by themselves or as part of a group effort, the result will always be shared with other people and hence be part of or feed into a collaborative PD process.

Tools and materials for telling, making and enacting vary in scale. The scale of tools that is needed for a group effort is different from the scale that works best for individual applications. For example, tools and materials for groups of participants need to contain a larger set of components and the components themselves need to be larger to facilitate the active involvement of everyone. Another way that the tools vary in scale is in reference to the 3D components. Full-scale components are ideal as they make the situation closer to reality and they support naturally occurring enactment. But sometimes a smaller scale is the only practical situation available, e.g., when transportation of the toolkits is required.

Methods, tools and techniques for telling, making and enacting vary in terms of purpose. The generative methods, tools and techniques fall into two categories: cognitive and emotional. Cognitive tools and techniques facilitate people's exploration and expression of how they understand things or events. Emotional tools and techniques facilitate people's ability to remember and communicate their thoughts, feelings and aspirations for the future.

Participatory design is a collection of tools and techniques, a set of methods and a mindset

In summary, the term participatory design is being used today to describe an incredibly wide range of activities with many different goals. So is PD a new way to differentiate your company in the marketplace? Is it yet another method with an interesting collection of tools that can be called upon in the design process? Or is PD much larger than that? Is it a mindset (established set of attitudes held by someone), or a worldview (a philosophy of life or conception of the world) that changes how the entire design development process is seen and takes place? The answer to all these questions is yes. PD can be any one or all three of these perspectives, depending on how you view it and use it.

PD as a mindset. This is the broadest and most long-range of the three perspectives and the one that has the most potential to have a positive impact on the lives of people. PD practiced from a mindset perspective is best executed by either very experienced design research practitioners or by young, intuitive practitioners. It is most useful and effective toward the front end of the design development process.

PD as a method. Here we see PD as a collection of tools and techniques that are often compared to other collections of methods (e.g., contextual inquiry or ethnographic fieldwork). The choice of methods may depend upon who is leading the project, what the budget and timing are, and other constraints. We see PD as a method being used mainly during the design exploration and design phases.

PD as a tool or technique. This perspective describes the use of PD as just another option in the toolbox of all tools and techniques that can be used in the processes of design, development, marketing and/or distribution. PD as a tool or technique is the perspective that has received the most attention in the popular press as it is being used as a fast and low-cost way to drive interest in and attention to brands and/or new products and services in the marketplace.

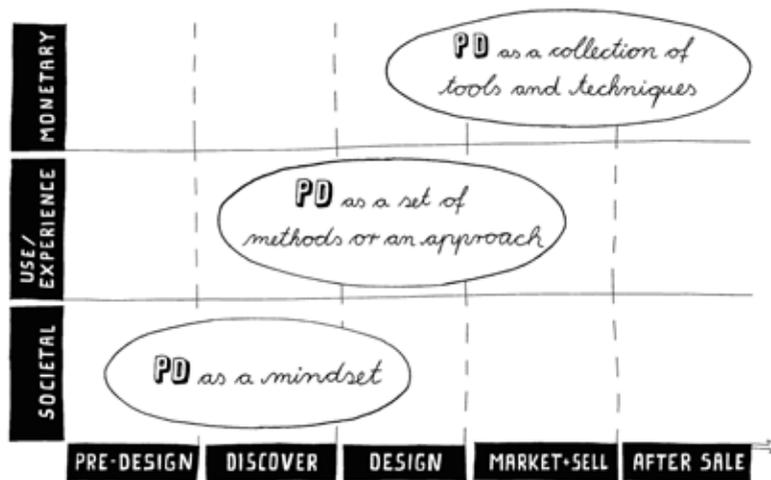


Fig. 5: The three perspectives on PD are positioned at points along the design development process and at various levels of value

Figure 4 shows the relationship between the three perspectives on PD and the point in the design development process at which the perspective is most useful. PD as a mindset is most useful in the front end. PD as a method is useful in the design-focused phases of the process. PD as a tool or technique is most useful at the tail end of the process. It can be very helpful to clarify which perspective you are talking about when having conversation with others about PD (or co-creation or co-designing) since all three perspectives are relevant and useful today.

Partizipation an Dingen des Designs¹

Pelle Ehn

Abstract

Der vorliegende Artikel diskutiert das Design von Dingen². Er untersucht einige der aktuellen politischen und praktischen Herausforderungen partizipatorischer Gestaltung. Welche Dinge und welche Partizipanten sind damit gemeint? Die Perspektive darauf ist strategisch und konzeptuell. Zwei Ansätze stehen im Fokus: Partizipatorische Gestaltung (die Gestaltung für die Nutzung vor der eigentlichen Nutzung) und Metadesign (das Design für die Gestaltung nach der eigentlichen Gestaltung). In diesem Rahmen betrachten wir die Herausforderungen, die es für professionelles Design bedeutet, an öffentlichen kontroversen Dingen zu partizipieren.

Dinge und Objekte

Für das Design sind natürlich Menschen essentiell, ebenso jedoch auch Objekte und Dinge. Aber was meinen wir mit Objekten und Dingen in der Gestaltung? Der vorliegende Artikel geht von jener Art soziomaterieller Anordnungen aus, die Bruno Latour so treffend als »Kollektive von Menschen und Nicht-Menschen« charakterisierte [33]. Dieses Ding war ursprünglich sowohl sozial als auch materiell. In vorchristlichen nordischen und germanischen Gesellschaften waren »Things« die Regierungsversammlungen und Plätze, an denen Streitigkeiten geklärt und politische Entscheidungen getroffen wurden³. Partizipatorische Gestaltung, so

¹ Der Text ist eine autorisierte Übersetzung aus dem englischen Original: Ehn, Pelle. (2008). Participation in design things. Proceedings of Participatory Design Conference (PDC), Bloomington, Indiana, USA, 2008.

² Anmerkung der Redaktion: In der vorliegenden Übersetzung wurde der Begriff »Ding« dem im Original verwendeten Begriff »thing« gleichgesetzt.

³ Anmerkung der Redaktion: Das Wort »Thing« bezeichnete

im Germanischen sowohl eine Volks- und Gerichtsversammlung, eine Sache, einen Gegenstand, wie eine Angelegenheit.