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## **Branding as Enabling Knowledge Creation: The Role of Space and Cognition in Branding Processes**

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This paper introduces the concept of *enabling*, as opposed to managing or controlling, as a key characteristic and attitude for designing spaces which are supposed to have a ‘branding effect’. In our case we will focus on a very specific notion of branding or branded spaces; namely, spaces that are branded for creating (new) knowledge. It can be seen easily that this is a very generic understanding of brand that can be applied to many domains. In other words, we see a brand not primarily as a product, but as a state of knowledge.

In such a view, branding is about creating a specific knowledge state in the user of a particular brand or “branded” space”. This implies that branding is the process that leads to a certain branded space, which sets the boundary conditions for an individual knowledge state of the perceiver. One of our key assumptions is that *branding is about (co-)creating new knowledge*. We are suggesting to *enable* such knowledge creation processes instead of pushing the user in a particular state of mind by trying to manipulate or gain control over his or her mind. It will be shown that state-of-the-art knowledge creation approaches can teach us a lot about enabling processes of knowledge creation and, hence, about branding (spaces).

In the first part of this paper we will develop the theoretical concept of enabling and its implications for processes of knowledge creation and branding. The second part is concerned with spaces that follow this approach of enabling. We refer to them as *Enabling Spaces* that facilitate knowledge (creation) processes by providing a framework of constraints. Finally we will discuss the implications for branding.

**Branding as Enabling**

## Cognitive Science and Epistemological Considerations

Is branding about controlling, influencing, manipulating, or modulating our minds? We suggest to approach branding from the perspective of cognitive science, for example, Brook and Stainton (2000), Clark (2001), and Friedenbergr and Silverman (2006)) and of creating (new) knowledge and innovations according to authors such as Amabile (1996), Fagerberg and Verspagen (2009), Krogh et al. (2000), Nonaka et al. (2008), and Peschl and Fundneider (2008). As an implication of the mentioned scientific foundations, *branding has something to do with creating a more or less well defined knowledge state or knowledge dynamics in the user* or the perceiver of a particular brand. In other words, branding is supposed to *create* some kind of *new knowledge* in the perceiver. This knowledge is the foundation of a particular 'brand experience' including emotional states, sensory states, social or cultural aspects, etc. Thus, the guiding question is how do we have to design a branded space for enabling the user that he or she is triggered in such a way that he/she may create new knowledge around the brand in an autonomous manner.

This leads us directly in the middle of two very old debates in epistemology and cognitive science: (i) (How) Can we specify desired states or dynamics of knowledge by external stimuli? (ii) (How) Can we produce new knowledge in a deterministic or rule-based manner? Question (i) concerns the debate between realism and antirealism/constructivism (Glaserfeld 1984, 1991, Maturana 1970, Varela et al. 1991). From the perspective of epistemology, systems theory, and of cognitive (neuro-)science it is clear that the environment does *not* completely determine the mental state or the knowledge of a cognitive system (Peschl 1997, 2001). The internal knowledge dynamics is only *modulated* by the environmental dynamics. This is due to the fact that we do not only find bottom-up connections, in the sense of projecting from the sensory system to the brain connections, but also a considerable multitude of top-down or outward connections projecting from the inside of the brain to the outside (Varela et al. 1991, Roth 2009, Peschl 2001, 1997, Goldstein 2002). According to the constructivist perspective this implies that external environmental stimuli only "perturbate" (Maturana 1970) or modulate the internal knowledge dynamics, but they cannot determine it. In this perspective, the goal of every cognitive system is to compensate for these perturbations and to try to get into a stable coupling, both physically and epistemologically, with the environment. For question (i) above this implies (not only for the process of branding) that we cannot assume that it is such a simple task to influence the users' knowledge dynamics or experience just by providing the 'right' set of stimuli. The effects of these stimuli will be rather limited or will not always evoke the expected change.

What about question (ii) concerning the possibility of mechanistically producing new knowledge? If we are assuming that branding has something to do with creating new knowledge in the user's or perceiver's mind, we have to admit that, as an implication of our

answer to question (i), we will have to seriously question a mechanistic understanding of creating new knowledge. Specifically, there must be the idea that rules, algorithms, or mechanisms exist describing the process of successfully producing new knowledge. This means that we have to challenge the assumption that if one applies these rules faithfully, this will lead to new knowledge in a *deterministic* manner. For our question of branding as knowledge creation, this implies that we will most probably fail if we think that we can bring about new knowledge in a mechanistic manner. What are the alternatives?

### Attitude of Enabling

While in the classical perspective the attitude of control and manipulation was in the fore, the authors suggest to replace this position with the approach of *enabling*. What does 'enabling' mean in the context of generating new knowledge? The answer covers two aspects that are crucial: (a) On the one hand we have to give up on the regime of control, determinism, and making. (b) On the other hand enabling implies to *provide a set of constraints* or a *facilitating framework* supporting the *processes of bringing forth new knowledge*, hence to facilitate the creation of brands in the perceiver's mind. This can be best thought of in a metaphor of a force field in which the constraints are realized as attractors and repellers. While the constraints are responsible for modulating, they do not determine the knowledge dynamics because knowledge dynamics is driven both by its internal dynamics and is carried by the forces of the attractors/repellers. These attractors and repellers act as a framework of constraints modulating the knowledge dynamics. Stokes (2007) and Onarheim (2012) show impressively the importance of constraints in processes of knowledge creation: new knowledge or innovation can only be brought forth in an environment that is not completely free and 'empty'; rather a set and framework of constraints is necessary in order to support these creation processes, which—in some cases—themselves might change the constraints.

What are the implications of this approach of enabling for knowledge creation? First of all, it has to be clear that this is not only an abstract and cognitive concept. Second, enabling is mainly a question of *attitude*, *habitus* or a paradigm of thinking and acting. Unfortunately, the enabling paradigm is a rather '*poor*' and *weak* concept in the following sense because one has to give up control and let things go and let things develop. Of course this is not a very comfortable position especially in a business environment where everything has to be efficient, determined, calculable, 'managed', and predictable.

However, the enabling attitude is a consequence of having to admit that we are not in (total) control especially when being engaged in knowledge creation activities. It seems to be more sensible to 'surrender' than to invest too much energy and resources into an epistemological battle, which we will never be able to win. However, enabling does not imply that we are only passively sitting there waiting for new knowledge to break forth; quite the contrary is true

because the real challenge is to create enabling structures in the form of constraints and active interventions which support these highly fragile processes.

As a consequence, the enabling approach requires an alternative set of attitudes, values, habitus/habits, as well as epistemic practices. First of all we have to (re-)acquire 'epistemological virtues' of openness, being able to reflect, to radically question ourselves, and to let go. Furthermore, we have to (re-)learn to listen and observe closely; to let ourselves be impressed, meaning that we are open to something that is changing us even if it means that we have to give up on well-established and dear patterns of thinking. Another attitude concerns the domain of cultivating our patience and our ability to wait for the 'right moment' (kairos) so that we can listen to weak and fragile signals in order to cultivate/incubate them. Finally, we have to learn how to provide an ecosystem or 'living ambiances' of cultivation, facilitation, incubation and enabling, rather than a regime of control and forced change.

What are the implications for the process of branding? Enabling requires a high level of humbleness giving the user priority for a process of knowledge creation 'from within'. For our concept of branding as a process of knowledge creation this implies that branding is not so much concerned with imposing manipulative stimuli from the outside on the user. Rather, in our understanding, the strategy is to provide a framework of enabling constraints that allows and facilitates the emergence of knowledge processes 'from within'. In other words, from our perspective, branding is about triggering a *latent knowledge* which is already there but not yet recognized and which is still 'dormant' and must be activated. In this sense branding is closely related to recent approaches in the field of knowledge creation, such as Scharmer's (2001, 2007) Theory-U or Peschl and Fundneider's (2008) Emergent Innovation approach. Hence, branding is not so much about manipulating the user's knowledge with brute force, such as exposing him/her to repetitive slogans, logos, ads, etc.; rather, *branding* is about taking him or her on a *joint journey of co-creation involving the user(s), the brand itself (as a process), networks, peers, as well as implicitly the brand designer*. During such a journey the user cultivates his or her latent knowledge and the *brand acts as an enabler for this process of activation*.

As a consequence, we need such enablers. It is interesting to see that a brand can act as an enabler (for knowledge creation) and on the other side, can be enabled by other enablers (technological, social, cultural, etc.). We refer to these knowledge creation eco-systems (Krippendorff 2006, 2011) as *Enabling Spaces* (Peschl 2007, Peschl and Fundneider 2012). They represent a rather generic form of branded spaces, namely spaces enabling processes of *knowledge co-creation*.

## Enabling Spaces

Enabling Spaces are conceived as multi-dimensional spaces that are orchestrated in an integrated manner in order to best possibly support processes of collaborative and individual knowledge creation. We are proposing a rather broad understanding of space involving several dimensions, such as an architectural, social, emotional, epistemological, technological dimension, etc. Hence, space is understood as an environment or a *container* providing a set of *constraints* which is responsible for holding this container together as well as giving it a minimal structure and dynamics. It is a space providing enabling structures, elements that facilitate and smoothly intervene, as well as constraints allowing knowledge processes to flow and to develop their own dynamics in such a way that radically new knowledge may break forth in the sense of bringing in-potential knowledge into action (see Peschl and Fundneider 2012).

Enabling Spaces are interdisciplinary in their nature. It is necessary to consider *constraints* and forms of *enabling interventions* from many different disciplines, such as social, emotional, cognitive, cultural, technological, epistemological, organizational, and, of course architectural constraints and interventions. The challenge is to integrate these aspects into a holistic ensemble which functions as an Enabling Space. It is the *interdisciplinary* interaction between these elements that brings about a seamless flow of knowledge and interaction between the participating cognitive systems and their environment. This is a typical *design process/task* which does not have a single “best solution”, but has to be approached in a ‘designerly manner’ (Dorst 2003, 2006, Glanville 1998, 2007, Gedenryd 1998).

## Integrating Dimensions of Knowledge Processes and Structures

As opposed to many other approaches the crucial point of Enabling Spaces is to *integrate* knowledge *processes* and *structures/constraints* in a highly consistent manner. This can only be achieved if one assumes a radical epistemological perspective; namely, one *starts* with studying the processes of *knowledge creation* which are involved in the prospective Enabling Space. Beyond that it is necessary to dive into the culture and the internal structures of the organization in order to gain a profound understanding of its *core* and its brand. The core and the brand are closely related to each other. While the core characterizes the inner workings and structures of an organization, the brand represents the *interface* of the organization towards the outside. This core is the foundation for developing a model of the organization’s core processes and, on their basis, *design patterns* (Alexander et al. 1977) which are a first step toward an integration of processes and structures.

The framework of Enabling Spaces acts as a container holding knowledge creation processes and activities. The Enabling Space is designed as a multi-dimensional space in which architectural/physical, social, cognitive, technological, epistemological, cultural, intellectual, emotional and other factors are considered and integrated with the aim to support knowledge creation activities. In the following sections, these dimensions will be described.

### **Architectural and Physical Space**

This dimension refers to the physical space or the Euclidean space in which the knowledge processes are taking place. It is an intentionally designed and built physical environment that surrounds the users with its concrete physical structure(s). These structures comprise all elements in the space and its context, be it walls, furniture, windows, its material dimension, etc. This space is mainly characterized by two elements of architecture (as built structures) and design. Examples of what the authors see as architectural spaces are: offices, spaces for creative and knowledge work, workshops, (knowledge) ateliers, concrete physical places as branded spaces, urban places, or even urban settlements, etc.

The challenge is to design this space in such a way that the flow of knowledge and social interaction is supported in the best possible way for the specific (knowledge or brand creation) task at stake. In most cases today's architecture leads to 'disabling spaces' rather than enabling or even actively supporting knowledge creation processes. Allen and Henn (2007), Krogh et al. (2000), and many others give good examples of how to solve this architectural design challenge. Allen and Henn (2007), for example, show impressively how the social coherence and communication patterns and behavior are influenced by the physical architecture. Furthermore, they show that the design of physical space is an intrinsic part of management tasks and has similar importance as, for instance the organizational structure and processes.

### **Social, Cultural, and Organizational Space**

Knowledge (creation) processes are always embedded in social processes; social interaction is a *conditio sine qua non* for the emergence of new knowledge in a collaborative setting. As is shown in the field of, for instance, science and technology studies (e.g., House 2003, Latour 1987, Cole and Derry 2005) or of creativity (Kelley 2004, Peschl 2009, Sternberg 2005) and by many others, social groups are essential for bringing forth new knowledge. Therefore, there has to be a 'social container', a (social) atmosphere, in which these processes can develop their own dynamics in order to gain their own strength. Apart from

other aspects, trust and openness are key enablers for the social dimension which have to be established before any kind of knowledge creation work or branding can start.

Above that, knowledge creation is always embedded in the culture and organizational structures of an organization. They heavily influence the enabling or disabling effects on knowledge creation processes and have to be considered and designed accordingly.

### Cognitive Space

Every process of knowledge creation has its origin in the individual brain and in cognitive processes. Cognition (and its interaction with the environment; cf. Clark's (2008) extended cognition approach) is the source of new knowledge. Hence, it is the cognitive space which has to be taken into account when thinking about Enabling Spaces. What are the key cognitive enablers among the cognitive activities which are provided by our brain? Among them are the cognitive abilities to observe closely, to "listen to what wants to emerge" (Scharmer 2007: p13 and p201), to reflect one's premises, to sense and to understand one's own patterns of thinking and perception, to enter into a 'real' dialogue (Bohm 1996, Isaacs 1999), practical intelligence/phronesis (φρόνησις) (e.g., Nonaka et al. 2008), or learning processes in a prototyping setting, etc.

### Emotional Space

Cognition is always embedded into *emotional states* and this applies especially to branded spaces. For example, the state of fear will, in most cases, neither trigger nor support a creative process. An Enabling Space has to take into consideration this dimension and offer features triggering emotional states supporting processes of knowledge creation, such as security, protection, openness, etc. However, the emotional dimension of Enabling Spaces is not only about 'feeling well'. In some cases it is necessary to push oneself into an emotionally *uncomfortable* situation in order to leave behind one's well-established and dear patterns of thought and perception.

### Epistemological Space

Dealing with knowledge creation processes always involves a wide spectrum of different types, categories, styles, or genres of knowledge processes. There is a huge difference between the knowledge being involved and created in a process of ideation, of close observation, of intuitive reasoning, of deep understanding, of sense making, of prototyping, of letting-come, of reflecting, of implementing, of executing a routine, etc.

Hence, in order to establish an epistemologically enabling eco-system, one has to first identify the knowledge processes which are relevant for the particular phase of the knowledge creation process (compare also the organizational epistemology approach by Tsoukas (2005) showing how different types of knowledge processes are intertwined in organizations). One has to understand the very nature of these processes. Finally, it is necessary to create an enabling environment in the sense of boundary conditions, constraints, attractors, etc. in which this knowledge dynamics can develop, can grow and flow. From these considerations it becomes clear that the resulting spaces will look very different according to the supported knowledge process and the organizational culture and social setting. For example, we worked with several corporate IT-departments and, although one would assume that the core processes are the same, they were quite different in their physical layouts, in their technological support as well as in their organizational processes.

### Technological and Virtual Space

Knowledge creation processes are always embedded in a technological environment. This comprises a wide range of technological means ranging from 'low-tech' tools such as white boards, flip charts, light ambiences, etc. to high-tech tools such as computers, the internet, social media, (knowledge) visualization tools, simulations, complex software, knowledge displays, etc. (Shneiderman 2007). In most knowledge creation processes, technological support from the area of *design (thinking)* has turned out to be highly productive (e.g., Brown 2009, Sanders and Stappers 2008). These tools comprise mapping technologies, knowledge technologies, observation technologies, or simulation and prototyping technologies.

### **Designing Branded Spaces as Enabling Spaces**

As we are dealing with a rather broad concept of space here, it is clear that these dimensions cannot be seen separately. Rather, the very goal of Enabling Spaces consists of *integrating* these aspects in a *radically interdisciplinary* manner of an integrated design, a whole, like a composition, or a piece of art ('Gesamtkunstwerk' in German). Especially in the context of collaborative processes of knowledge creation we see the necessity of integrating social, cultural, emotional, physical/architectural, as well as epistemological issues. Consequently bringing forth new knowledge is a highly fragile knowledge process which is about intuition, listening to weak signals, deep thinking and understanding, incubating vague knowledge, etc. Due to the fragility and vulnerability of these processes, it is necessary to create a kind of *container*, an Enabling Space, providing *qualities* like offering an environment of *protection*,

of being able to hold and cultivate epistemological and social fragility, of enabling the free flow of knowledge, of silence, of openness for error, openness for change, etc.

These design qualities have to be translated into integrated and interdisciplinary concepts, which, in their wholeness form a concrete Enabling Space. In this context this means that *trust* is a major issue. Trust is needed not only between the team members, i.e., in the concrete social domain, but also as a cultural value in the organization, which does not only exist on paper, but is practiced in every routine and social interaction. Furthermore, there has to be established an (epistemological) understanding that the knowledge and processes which the team is dealing with here are highly fragile and need completely different mindsets and attitudes: a different mode of operating, of talking, 'negotiating' meaning, dialoguing, and interacting with each other, novel criteria of evaluating and judging, etc. Furthermore, the (interior) design of this space has to reflect this vulnerability and fragility on the one and the openness on the other hand.

Hence, the challenge is how to *design* such a complex high dimensional space that, despite its diversity and dynamics, maintains its unity. The goal of the Enabling Spaces design process/approach is to devise and develop architectural design concepts for spaces cultivating and supporting processes of knowledge creation and innovation. This whole process is based on a *profound understanding of the organization and/or brand*. Starting with an extensive research phase, the organization's and brand's core knowledge processes as well as its cultural, organizational, and structural parameters are identified. This is achieved by means of a wide variety of participatory and ethnographic qualitative and quantitative observation methods (e.g., how are users interacting, how are particular spaces being used, etc.). The experiences and perspectives of a selected variety of stakeholders are studied through qualitative, generative in-depth interviews (depending on the size of the project 10–30 interviews). Furthermore, the behaviors and needs of a systemically wide stakeholder group are identified by using a comprehensive quantitative online questionnaire. The observation/research phase is completed by ethnographic studies as well as by observing and collecting artifacts, processes, etc.

In the next step, the 'sense-making phase', this systemic multi-perspective and multi-stakeholder view, is condensed into a so-called 'core-process model' illustrating the research findings in a highly concentrated manner. In this phase, the observation results are analyzed, described, and checked for patterns, (hidden) assumptions, polarities, discrepancies, and potentials in a qualitative inductive process so that a comprehensive overall profile being based on a profound understanding of the organization/brand can be developed. These core processes represent the essence of the organization and the brand; they act as a solid theoretical foundation for all subsequent design as well as for decision-making processes.

This abstract model is then transformed into *design patterns* describing and explicating *design qualities*. Their function is to provide the foundation for translating and transforming these abstract core knowledge processes into concepts for concrete (materialized) structures and processes. They are a necessary prerequisite for understanding and realizing the various (architectural, social, technological, organizational, etc.) dimensions of the Enabling Space. On the basis of these design patterns, a holistic design concept is co-developed in interdisciplinary workshops bringing together experts from different fields, such as architecture, design, sociology, information and communication technology, etc. The result of a design concept goes far beyond architectural aspects and, in many cases, brings about changes in the organizational and social structures, processes, and culture. Architecture transforms and shapes organizations/brands and vice versa.

### **Design Principles for Branded Enabling Spaces**

Several principles and implications can be derived from Enabling Spaces that are relevant for the design of branded spaces:

*Primacy of enabling (vs. controlling)*: Instead of designing systems which try to mechanically create new knowledge or manipulate the user of a branded space, it is necessary to think about such systems in terms of a set of subtle and well-balanced constraints and interventions facilitating and supporting the cognitive and social processes of knowledge creation. They can be thought of as a structured container providing the necessary conditions for *emergent* processes of knowledge (co-)creation. They leave room for and trust in the emerging knowledge dynamics and in the processes of social interaction. This attitude of enabling is probably the most important principle which should be present in every design decision as it gives the knowledge creation process a whole new character and dynamics.

*Trust as primary epistemic virtue*: Both branded spaces and Enabling Spaces build on and at the same time should support and enable “epistemic virtues” but first and foremost *trust*. Trust is the social and epistemic driver and *conditio sine qua non* for any process of collaborative knowledge creation as well as for any process of branding. It is necessary to establish both a social and an epistemological atmosphere supporting these highly fragile processes being involved in generating new knowledge. In classical knowledge creation or innovation settings this can be achieved by systematic teambuilding activities, by creating awareness about the fragility of these intuitive processes, by an architectural design inducing an atmosphere of protection, by establishing rules (of conduct), ethical principles, or policies both for the face-to-face and the virtual domain, etc. An atmosphere of trust allows for several other epistemic competencies which are highly valuable for the process of knowledge creation; e.g., openness, transparency, sharing of knowledge and intuitions,

reflectiveness, openness to challenging one's own assumptions and deep knowledge/attitudes, etc.

*Taking epistemology seriously:* Experience from a large number of projects with Enabling Spaces has shown that it is essential to use knowledge processes as the point of departure. Apart from classical parameters, such as organizational structures, emotional and cultural processes and characteristics, or social issues, knowledge processes reveal the very deep 'secrets' of the brand and the organization. A *profound understanding* of the content, the assumptions, etc. is a key for designing such enabling environments. This can only be achieved by an in-depth qualitative analysis, especially, if one wants to use such environments as a chance for 'branding' users' minds.

*Interdisciplinarity:* Such spaces are interdisciplinary in nature; in their design and their knowledge results. In most cases the new emerges at the borders of disciplines and is the result of friction between these borders (Eigenbrode et al. 2007). In this context one has to emphasize the increasing importance of the approaches and skills provided by the humanities (e.g., tools for reflection, sense making, or creation of meaning) and arts (e.g., design thinking, Brown 2008, 2009).

*Integration of social, epistemological, as well as technological issues:* according to Krippendorff (1989, 2006, 2011) innovations are artifacts; they themselves are produced by cognitive systems using artifacts supporting knowledge creation processes. Branded spaces as well as Enabling Spaces have to be seen as technologies integrating various fields of epistemology, social systems, cultural and architectural matters, and ICT. They are an ecology of artifacts (Krippendorff and Butter 2007: 5) and *socio-epistemological technologies* that enable collaborative creation of new knowledge.

*Primacy of interactivity & interface:* Following Norman's (1991) suggestion that we should not misunderstand (cognitive) artifacts as tools primarily amplifying already existing cognitive (creative) abilities, we should start understanding both Enabling Spaces and branded spaces as spaces facilitating a change in the mode of knowledge creation and perception. It is the *interaction* between the enabling artifacts and the participating cognitive systems that give rise to a change in the way of bringing forth new knowledge and finally of perceiving the world.

Furthermore, it is not primarily the materiality of Enabling Spaces, including information and communication tools, but its *social utilization* by *interacting* with them that is of importance (e.g., Krippendorff 2011). We have to focus on the process and the functionality of an *interface* which is offered by this integration of tools forming an Enabling/branded Space. They act as an *interface* enabling a smooth interaction with the user and potential new knowledge. Therefore, it is not only about an interface in the sense of a human-computer

interface, but about the *whole branded space as an interface* coupling the users, technology, physical and non-physical structures, his/her cognition with the knowledge about the brand.

*Importance of physical space:* Physical space is not only about the (social) quality of face-to-face collaboration and communication, but also about the epistemological quality in the processes of knowledge creation. As we have seen it is the enabling quality of the surrounding artifacts which 'extends' our cognitive abilities (Clark 2008, Menary 2010) in processes of knowledge creation. It is in the nature of our mind as well as of the epistemological domain that we need some *direct* input as well as 'resistance' from the environment as opposed to purely virtual experiences thereof. This is well known form (philosophy of) science: whenever we are doing empirical experiments we are confronted with the limits of reality and, by 'colliding with reality', we are learning and creating new knowledge through applying a trial-and-error strategy. This process of verification/falsification (Popper 1959, 1962) is at the heart of any process of knowledge creation. In most cases these things cannot be solved by only applying virtual methods (e.g., simulations), as the experience of the 'resistance' is rather limited in the virtual realm. These things have to be done in 'real world' environments. Ideally, it is a well-balanced combination of real and virtual enablers that support the processes for knowledge creation necessary for brand creation best.

## **Conclusion**

One of the premises of this paper was that branding is based on a process of knowledge (co-)creation. This process is part of emotional binding, as well as social and cultural issues. It has been shown that the perspective of a mechanistic knowledge production has to be replaced by an attitude of *enabling*. In the context of knowledge creation enabling means to *provide a set of constraints*. For instance, Stokes (2007) or Onarheim (2012) show the importance of constraints in knowledge creation processes and/or of a *facilitating framework* for supporting these *processes of bringing forth new knowledge*. We have seen that the enabling approach requires an alternative set of attitudes, values, as well as epistemic practices: openness, being able to reflect, to radically question ourselves and our assumptions, and to let go. Furthermore, we have to acquire basic epistemic practices that are necessary prerequisites for successful work in knowledge creation.

As a consequence, we had to ask ourselves how this set of enabling constraints and interventions as well as the resulting epistemic practices could be realized. Which environments are necessary that these processes can come about? We referred to these environments as *Enabling Spaces*. It is obvious that cognition is at the heart of every process

of knowledge creation. Nevertheless cognition is always embedded and situated in the body and in its environment (Clark 2008, Menary 2010, Varela et al. 1991). The concept of Enabling Spaces is a result of taking seriously that knowledge creation is not only a cognitive activity being located inside the brain or purely virtual between people, but it is intrinsically coupled with the environment that includes the social environment. Enabling Spaces provide such an extended cognitive environment that holds, incubates, and cultivates these fragile processes of knowledge creation. It has been shown that Enabling Spaces comprise several dimensions which have to be integrated into an interdisciplinary design. The main point is the *radical integration* of knowledge *processes* with architectural, social, cognitive, emotional, etc. *structures*. It is this delicate balance between controlling the processes of knowledge creation and letting them follow their own flow, which represents the quality of a well-designed Enabling Space.

As for branded spaces our considerations concerning Enabling Spaces have several implications. One important dimension of branded spaces is that new (brand-) knowledge is (co-)created in the user of such spaces by providing a specific environment and by interacting with the brand (see extended cognition approach). Co-Creation happens in several ways: between the user and the brand artifacts, social interaction between users, and interaction between an enabling branded space and the user. Hence, what we have learned in Enabling Spaces about facilitating processes of knowledge co-creation also can be applied in the context of branded spaces. Furthermore, Enabling Spaces themselves can be used as source for creating brands and branded spaces.

If branded spaces are about supporting processes of knowledge creation, we suggest that the strategy is to provide a framework of enabling constraints that allows and facilitates the emergence of knowledge processes 'from within'. This means that they should be designed in such a way that they trigger *latent knowledge* which is already there and which has not been recognized yet, which is still 'dormant' and which has to be activated. Here we can learn a lot from recent approaches in the field of knowledge creation, such as Scharmer's (2001, 2007) Theory-U or Peschl and Fundneider's (2008) Emergent Innovation approach. In such a perspective branding and branded spaces are not so much about influencing or manipulating the user. Rather, branding is about taking the user on a *joint journey of (knowledge) co-creation* during which his or her latent knowledge becomes cultivated and the *brand acts as an enabler for this process of activation*.

## References

Alexander, C., Ishikawa, S. and Silverstein, M. (1977): A pattern language: Towns, buildings,

construction. Oxford: Oxford University Press.

Allen, T.J. and Henn, G.W. (2007): The organization of architecture and innovation: Managing the flow of technology. Amsterdam: Butterworth-Heinemann Elsevier.

Amabile, T. (1996): Creativity in context. Boulder: Westview Press.

Bohm, D. (1996): On dialogue. London: Routledge.

Brook, A. and Stainton, R.J. (2000): Knowledge and mind: A philosophical introduction. Cambridge, MA: MIT Press.

Brown, T. (2008): Design thinking. In: Harvard Business Review, 86(6), 84-93.

Brown, T. (2009): Change by design: How design thinking transforms organizations and inspires innovation. New York, NY: Harper Collins.

Clark, A. (2001): Mindware: An introduction to the philosophy of cognitive science. New York: Oxford University Press.

Clark, A. (2008): Supersizing the mind: Embodiment, action, and cognitive extension. Oxford: Oxford University Press.

Cole, M. and Derry, J. (2005): We have met technology and it is us. In: Sternberg, R.J. and Preiss, D. (eds.): Intelligence and technology: The impact of tools on the nature and development of human abilities. Hillsdale, NJ: Lawrence Erlbaum Associates, 209-227.

Dorst, K. (2003): The problem of design problems. In: Cross, N. and Edmonds, E. (eds.): Expertise in design. Sydney: Creativity and Cognition Studio Press, 135-147.

Dorst, K. (2006): Design problems and design paradoxes. In: Design Issues, 22(3), 4-17.

Eigenbrode, S.D., others (2007): Employing philosophical dialogue in collaborative science. In: Bioscience, 57(1), 55-64.

Fagerberg, J. and Verspagen, B. (2009): Innovation studies: The emerging structure of a new scientific field. In: Research Policy, 38, 218-233.

Friedenberg, J. and Silverman, G. (2006): Cognitive science: An introduction to the study of the mind. Thousand Oaks, CA: Sage Publications.

Gedenryd, H. (1998): How designers work. Lund, Sweden: Lund University Cognitive Studies.

Glanville, R. (1998): Re-searching design and designing research. In: Design Issues, 15(2), 88-91.

Glanville, R. (2007): Try again. Fail again. Fail better: The cybernetics in design and the design in cybernetics. In: Kybernetes: The International Journal of Systems and Cybernetics,

36(9/10), 1173-1206.

Glaserfeld, E. v. (1984): An introduction to radical constructivism. In: Watzlawick, P. (ed.): *The invented reality*. New York: Norton, 17-40.

Glaserfeld, E. v. (1991): Knowing without metaphysics: Aspects of the radical constructivist position. In: Steier, F. (ed.): *Research and reflexivity*. London: SAGE Publishers, 12-29.

Goldstein, E.B. (2002): *Sensation and perception*. Pacific Grove, CA: Wadsworth Publishing Company.

House, N.A. Van (2003): Science and technology studies and information studies. In: Cronin, B. (ed.): *Annual review of information science and technology*, 38, 3-86.

Isaacs, W.N. (1999): *Dialogue and the art of thinking together: A pioneering approach to communicating in business and life*. New York: Doubleday Currency.

Kelley, T. (2004): *The art of innovation: Lessons in creativity from IDEO, America's leading design firm*. London: Profile Books.

Krippendorff, K. (1989): On the essential contexts of artifacts or on the proposition that 'design is making sense (of things)'. In: *Design Issues*, 5(2), 9-39.

Krippendorff, K. (2006): *The semantic turn: A new foundation for design*. Boca Raton, FL: Taylor and Francis CRC Press.

Krippendorff, K. (2011): Principles of design and a trajectory of artificiality. In: *Journal of Product Innovation Management*, 28, 411-418.

Krippendorff, K. and Butter, R. (2007): Semantics: Meanings and contexts of artifacts. In: Schifferstein, H.N.J. and Hekkert, P. (eds.): *Product experience*. New York: Elsevier, 1-25.

Krogh, G. v., Ichijo, K. and Nonaka, I. (2000): *Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation*. New York: Oxford University Press.

Latour, B. (1987): *Science in action: How to follow scientists and engineers through society*. Milton Keynes: Open University Press.

Maturana, H.R. (1970): Biology of cognition. In: Maturana, H.R. and Varela, F.J. (eds.): *Autopoiesis and cognition: The realization of the living*. Dordrecht, Boston: Reidel Pub., 2-60.

Menary, R. (ed.) (2010): *The extended mind*. Cambridge, MA: MIT Press.

Nonaka, I., Toyama, R. and Hirata, T. (2008): *Managing flow: A process theory of the knowledge based firm*. Basingstoke, New York: Palgrave Macmillan.

Norman, D.A. (1991): Cognitive artifacts. In: Carroll, J.M. (ed.): *Designing interaction:*

Psychology at the human-computer interface. New York, NY: Cambridge University Press, 17-38.

Onarheim, B. (2012): Creativity from constraints in engineering design: Lessons learned at Coloplast. In: *Journal of Engineering Design*, 23(4), 323-336.

Peschl, M.F. (1997): The representational relation between environmental structures and neural systems: Autonomy and environmental dependency in neural knowledge representation. In: *Nonlinear Dynamics, Psychology, and Life Sciences (NDPSFS)*, 1(2), 99-121.

Peschl, M.F. (2001): Constructivism, cognition, and science: An investigation of its links and possible shortcomings. In: *Foundations of Science*, 6(1), 125-161.

Peschl, M.F. (2007): Enabling spaces: Epistemologische Grundlagen der Ermöglichung von Innovation und knowledge creation. In: Gronau, N. (ed.): *Professionelles Wissensmanagement: Erfahrungen und Visionen*. Berlin: GITO, 362-372.

Peschl, M.F. (2009): Innovation as a socio-epistemological technology. In: Hornung-Prähauser, V. and Luckmann, M. (eds.): *Creativity and innovation competencies on the Web: How does the 'new' emerge with support of Web technologies?* Salzburg: Salzburg Research, 46-56.

Peschl, M.F. and Fundneider, T. (2008): Emergent innovation and sustainable knowledge co-creation: A socio-epistemological approach to 'innovation from within'. In: Lytras, M.D., Carroll, J.M. and Damiani, E. (eds.): *The open knowledge society: A computer science and information systems manifesto*. New York: Springer, 101-108.

Peschl, M.F. and Fundneider, T. (2012): Spaces enabling game-changing and sustaining innovations: Why space matters for knowledge creation and innovation. In: *Journal of Organisational Transformation and Social Change (OTSC)*, 9(1), 41-61.

Popper, K.R. (1962): *Conjectures and refutations: The growth of scientific knowledge*. New York: Basic Books.

Popper, K.R. (1959): *The logic of scientific discovery*. London: Hutchinson.

Roth, G. (2009): *Aus der Sicht des Gehirns*. Frankfurt am Main: Suhrkamp.

Sanders, E.B.-N. and Stappers, P.J. (2008): Co-creation and the new landscapes of design. In: *CoDesign*, 4(1), 5-18.

Scharmer, C.O. (2001): Self-transcending knowledge: Sensing and organizing around emerging opportunities. In: *Journal of Knowledge Management*, 5(2), 137-150.

Scharmer, C.O. (2007): *Theory U: Leading from the future as it emerges: The social*

technology of presencing. Cambridge, MA: Society for Organizational Learning.

Shneiderman, B. (2007): Creativity support tools: Accelerating discovery and innovation. In: *Commun. ACM*, 50, 20-32.

Sternberg, R.J. (2005): Creativity or creativities? In: *International Journal of Human-Computer Studies*, 63, 370-382.

Stokes, P.D. (2007): Using constraints to generate and sustain novelty. In: *Psychology of Aesthetics, Creativity, and the Arts*, 1(2), 107-113.

Tsoukas, H. (2005): *Complex knowledge: Studies in organizational epistemology*. Oxford: Oxford University Press.

Varela, F.J., Thompson, E. and Rosch, E. (1991): *The embodied mind: Cognitive science and human experience*. Cambridge, MA: MIT Press.