Hacking the organization: Organizational Transformation by Design

Hans Kaspar Hugentobler

Abstract: Today’s organizations are facing the challenge of almost constant change. This paper suggests that design can play a bigger role in organizational transformation, one that is on structure, based on conversation, and focused on thinking in terms of change processes. By asking: “How might design influence organizational change and system behavior in organizations – understood as social systems?” we hypothesize that addressing this question through the lens of Strategic Design Planning will shed light on a set of potential competencies needed for that level of work. Accordingly the paper synthesizes and discusses key literature from three areas: organizational change, organization as social system, and design for transformation. The result points to overlapping concepts that converge into a common statement as basis for empowerment in human systems driven by design. The research contributes to an understanding of the design organization interface.

Keywords: strategic design planning, organizational development, organizational transformation, organization as social system, organization design, design for transformation

1. Introduction

From a management consulting standpoint, Richard Normann identifies digital technology and associated connectivity as key drivers for changing the context of value creation, bringing about disruption of existing patterns and leading to the evolution of new patterns. This transition space between strategic paradigms requires organizations to change themselves and reconfigure their business systems in order to fit better into the new environment. This requires new capabilities towards more exploratory modes of leadership, organization and interaction (Normann, 2001).

It is from such a background that the rise of the Design Thinking movement can be understood. Design Thinking, and how it is framed within non-design sectors, is seen as function of a transitional moment, “to aid in the navigation of transition” (Stewart, 2011, p. 517). However, Design Thinking, as it is currently integrated in organizations is only related to innovation, the business side of an enterprise, but not in the organization side of it. It remains largely unspecific in the process used, and only specific insofar as it is also increasingly applied to newer problem areas (Margolin, 2015).
With respect to organization and related collaboration, we ask if design can play a bigger role in organizational transformation, one that moves from integrating design thinking in innovation to a broader role in designing organizational structures and cultures. More explicitly: “How might design influence organizational change and system behavior in organizations – understood as social systems?” We hypothesize that by addressing this question through the lens of Strategic Design Planning, a potential competency set for design’s contribution to organizational transformation could be further sketched out. Towards that end, the paper synthesizes key literature from the organization sciences and design sciences. The result highlights key design competencies for designers in the broad sense who aim at bringing about change in the way people in an organization work together.

2. Strategic Design Planning

Strategic Design Planning is the most strategic one of four different levels of design practice, according to Heskett’s Design as Strategy model (Heskett, 2005, see Dilnot, 2016). It emphasizes corporate-wide strategies and innovation at the “Original Strategic Management” (OSM) level. A designer as planner engages in planning activities with a focus on new concepts and systems that have an organizational and strategic emphasis. Activity areas and related key design competencies include “systemic innovations, including new products, services and systems (...). This involves continuous innovation rather than single projects.” (p. 261) The Institute of Design, where Heskett served as a professor, adds organizational processes to the list, linking the design process to the identification of opportunities (Institute of Design, 2008).

Strategic Design Planning competences relate to the following principles: differentiation between process skills and domain knowledge, balancing problem definition and solution finding, addressing unframed challenges, focusing on sense-making activities prior to strange-making activities, and prioritizing human beings and human values as incorporated in the Human-Centered Design paradigm. Principles include a strong grounding in a hybrid toolbox of social science, design and business methods, a system view, a focus on the relationship between user and business values, a consideration of the relationship between means and ends, an estimation of the value of not-knowing as a prerequisite to understanding the not yet understood. However, the concept lacks an explicit focus and related competency on the social, human side of the actors inside the organization.

In order to compensate for that gap, we propose to broaden its scope to include the issue of organizational structure. We propose this because structure understood as organizing is the defining element for innovating. Structure is generating behavior. This is Senge’s first principle of systems thinking (Senge, 1990). That way, the organization part of the enterprise and the business part of the enterprise can be addressed together and thus more completely relate to the organizational enablers of leadership, organization, and interaction. This proposal is stimulated by an understanding of the law of requisite variety. According to that law a system such as an organization should match the complexity of its environment in order to be able to survive (Bollier, 2010). With regard to design, Jonas (1996) makes the same claim, saying that the inner complexity of design in order to be able to better to deal with the outer complexity of where it is applied is not sufficient. The inclusion of the organization part of the enterprise will increase that complexity and thus broaden the possibilities of design to engage and contribute in organizational transformation by opening up a space for “Starting points for alternative organization ideas” (Baecker, 1999, p. 356).

In order to look more closely into design for alternative ways of organizing, we will look at how design is seen from the standpoint of organization theory and the fields of organizational
development and organizational design. The trajectory can be regarded as a pull-strategy to increase relevance for practice.

3. Organizational Change

Romme (2003) describes a genealogy of design methodologies for organization and management. The trajectory starts with the control and coordination of production, then moves on to codified processes for planning, and from there to co-evolutionary systems approaches and organizational learning (including the idea of intervention) that shape the organization as a human social system. More recent approaches in integrating design are seen in providing the prescriptive knowledge necessary for implementation together with a focus on humanistic values (Van Aken, 2007), thus overcoming self-perceived conceptual and methodological shortcomings. Romme calls this “relevance gap” in organizational and management sciences, indicating that science based evidence is often not relevant for the practitioners who act in design mode. Four perspectives illustrate specific explicit and implicit interpretations of what might inform a potential competency set.

From an organizational development perspective, Scheuer (2010) is reporting about an organizational change project on clinical pathways in a psychiatric ward. He analyzes that “what might be most important in design processes and when doing organizational design work is to focus on how local humans and non-humans in specific organizational socio-cultural and material contexts may be mobilized in order to achieve wished-for goals. The important type of knowledge in this connection is knowledge about the organizational design process and the context in which the designing takes place.” (p. 61) Scheuer’s consulting perspective is an interventionist’s view aimed at empowering the local team to act in design mode.

From a standpoint of organizational design, Barry (2016) describes a hypothetical shift from analytical to designerly organization design, mentioning that the latter “will gradually incorporate complexity thinking, ...” While pointing to their key differences in terms of “convergent, law-directed formulations” versus “divergent, law-breaking ideas” (p. 89) and concluding that designerly ways of organizing open up beyond organizational structure issues into intertwined organizational identity issues. Barry’s scholarly perspective points to a systemic perspective, humanistic values, and ultimately to the purpose of the organization.

Weick (2004), also from an organizational design perspective, is expanding to organizational design from a managing perspective. He compares Frank Gehry’s practice or architecting with Dee Hock designing VISA, by analyzing how Hock was able to turn hard disagreement into agreement. The story goes as following: on the final day of the attempt to form VISA, the meeting was polarized. Hock adjourned the meeting and invited everyone for dinner. After dinner, reminiscing about the shared experience of two years trying to form VISA, Hock let the waiters place a small gift box in front of everyone. The box contained a set of golden cuff links, both depicting halves of the globe, one with the phrase “the will to succeed”, the other with “the grace to compromise”. He asked the participants to wear the cuffs the next morning, adding: “Will you please wear the cuff links to the meeting in the morning? When we part we will take with us a reminder for the rest of our lives that the world can never be united through us because we lack the will to succeed and the grace to compromise. But if by some miracle our differences dissolve before morning, this gift will remind us that the world was united because we did have the will to succeed and the grace to compromise” (Weick, 2004, p. 38, paraphrased from Hock, 1999, pp. 247–48). The next morning, agreement was reached. So far the story. The incident is about a visionary designer moving a grand idea through many people. This is about a progression from purpose to principles to people to concept to structure to practices, but
also about the limits of design, because nothing needs to be designed to the end, insofar as people “have the confidence, latitude, and expertise to self-organize the rest of the details.” (p. 38) And: “The incident is about agreement. (...) Effective designing makes it possible for people to move toward reconciliation and coordination.” (p. 38) And: “The incident is about identities and structures that are reified into solidity yet can be undone and redefined if enough social pressure or power or attractive alternatives can be mobilized. (...) The image of ‘community’ as the rudimentary form of organization is crucial.” (p. 38) And: “Hock declares an impasse and the imminent disbanding of VISA, which sets conversations in motion (...)” (p. 39) And: “The incident is about flow, motion, dynamics, updating, negotiating, and malleability. The forms that impose order on the gatherings are transient forms that momentarily give meaning to shifting relationships.” (p. 39) Hock understood that he could not set more in motion than purpose, principles and people, for the rest he had to rely on these people to self-organizing. It means that designers stop before they actually design structures and processes. Weick: “He underspecifies the structure and allows others to add in density. By doing so, he increases the chance that the designing will retain vitality because people on the frontline customize the procedures and structures to meet the demands they actually face.” (p. 44) Looking at the progression from purpose (dream) to structure (practices), coordination is necessary. But the more coordination, the bigger the danger that the original dream gets lost. Therefore Gehry builds multiple models of the same dream, blending them into a final version. The final version is therefore less fixed and what is reified is still malleable. It leads to the possibility that the structure that contains in its reification a multiplicity of models is many structures and can update, “in other words, the structure is infused with the capability to be self-organizing.” (p. 45). Weick concludes: “This is a portrait of designing that scholars of organizational design should take more seriously. Why? Because Frank Gehry has already demonstrated that it works.” (p. 48)

From a Systemic Intervention perspective, Koenigswieser (2005) describes an intervention practice based on a systemic integration management model. It has similarities with the design approach in the way it uses vision as a driver for development, differentiates between domain knowledge and process skills, acknowledges the import of additional knowledge that is not yet available inside the organization, includes an in-built, but open, result orientation, relies on a learning process to be modified according to progress, and uses a hybrid toolbox. Unlike design, the process is framed by means of the organizational enablers of strategy, structure and culture. And unlike design, it includes three levels of intervention and/or work: architecture level (meta-planning the intervention process), design level (planning the intervention formats), and tool level (working while using tools).

In order to look more closely into the human system and bring it to the foreground, we will look at what constitutes a social system.

### 4. Organization as Social System

Margolin (2015) conceives of a new practice of design and elaborates on the idea of “Human Systems Design” as a form of intervention. He specifically points to Vickers definition of human systems in that “the essence of a human system is that it is composed of human beings who bring it into being by their actions and their experiences.” (Vickers, p. 175, cited in Margolin, 2005) Senge (1990) points out that “This means that we often have the power to alter structures within which we are operating.” (p. 4). The importance of human action within systems implies that these systems are inherently open to whatever result will be achieved by means of the process and human actions and experiences. Vickers calls these ‘appreciative systems’, characterized by three needs: “sufficient correspondence with reality to guide action; sufficient sharing with others to mediate
communication; and sufficient acceptability to make life bearable.” (Vickers, p. 55, cited in Margolin, 2005)

For human system designers, Margolin proposes skills to “frame a design situation”, “extensive social and political analysis and engagement as well as the formulation of design propositions” (p. 161), “the capacity to analyze those contexts and incorporate the analyses into the design of workable interventions” (p. 161), “the capacity to deal with the design of systems themselves in addition to the services that a system might deliver.” (p. 161) And being an “advocate for adequate resources to ensure successful intervention.” (p. 162) As well as “own techniques to model proposed intervention strategies.” (p. 162) regarding behavioral change. But he is also saying that “As a new practice, the possibilities of human systems design are actually unknown.” And “The methods required to achieve such ends are yet to be developed.” (p. 161) And so it is the other way around.

Regarding the need to “mediate communication” Banathy & Jelnink (2004) point to the role of dialogue in conscious evolution. “Evolutionary design is a creating activity, which brings forth a potential-driven, intended novel socio-cultural system in the evolutionary design space (...) where alternative design ideas are proposed and tested for their viability and for the “goodness of fit” with their environment, which becomes their life-space.” (p. 433). The methods are a combination of generative and strategic dialogue “of intentional social communication in an evolutionary designing community.” (p. 433) The authors regard dialogue approaches, methods and tools as means of collective consensus building evolutionary design. Norum (2004) calls such conversation future search conversations where the goal is creating an ideal systems future based on a shared purpose, and are seen as design conversations.

In order to look more closely into creation oriented transformative endeavors as put forward by social system theory, we will have a look at how design theory projects the organization as a place of creation oriented “synthetic competency” (Jonas, cited in Margolin, 2016, p. 55)

5. Design for Transformation

From the perspective of the design disciplines, the idea to work on structures and processes is in distant view. This can be understood when looking at two maturity frameworks developed in the field of design. They can be regarded as a push-strategy to avoiding commoditization and creating chances for value creating capacity in more strategic roles.

Buchanan (1992) offers the four orders of design model, which maps four “places of invention” for design, moving from graphic communication (symbols: words and images/ symbolic and visual communications) to industrial design (physical objects/ material objects) and further to interaction design (activities, services, processes/ activities and organized services) and to organizational and systems design (systems, organizations, environments/ complex systems or environments for living, working, playing, and learning).

NextDesign (2009), from a consulting perspective, offers a similar model that is a sense-making framework in the form of a complexity scale that includes four paradigms to be used as practice and study zones. The framework relates to a scale of challenges in the real world and is process, not content focused. The scale moves from Design 1 (traditional design) to Design 2 (product design innovation), Design 3 (organizational transformation design), and Design 4 (social transformation design), but in reality these zones, like the four orders, exist in parallel.

Both maturity trajectories trace a path towards greater complexity and serve the need to have meaningful discussions about design with organization leaders on how to use design. While
Buchanan does not mention any competencies related to the four orders, NextDesign is very clear about them. Both Design 3 and 4 realms, in which cross-disciplinary project teams including customers, are working, include connected inbound and outbound tools and an externalized process separate from content to support unframed organizational challenges.

Burns et al. (2006) are highlighting an evolving human-centered design practice to increasingly complex issues by means of interdisciplinary, participatory, capacity building oriented, unframed challenged focused, system and cultural change oriented design principles, processes and skills under the label “Transformation Design”. While it highlights an intention aimed at conceiving of new solutions (systems, services, organizations, policies), it does not define the envisioned new type of practice, but mentions the “need to find ways of developing new skills and orientation on the ‘supply side’ of transformation design (... ) and champion a human-centered design approach at the highest levels.” (p. 28)

Jonas (2015) puts a seemingly related idea of “Transformation Design” in the context of a shift from growth-oriented economies towards a post-growth society with a focus on the “social dimensions and conditions of designing” (p. 009). Explicitly referring to Design 4 (social transformation design) in NextDesign’s model and to Herbert Simon (1996) in the chapter on “Designing the Evolving Artifact”, he mentions bottom-up design projects with transformative character that might spread. They hint to reversible and scalable projects in the form of local learning and living labs, aimed not at final solutions, but at increasing variety of choice and multiple possible alternatives. Jonas envisions broader notions of design, a shift from consumerism to organization and social issues by means of communication processes between people and within systems and networks, adding that “The main subject of transformation design is open communication processes, which serve for a creative enquiry into new potentialities and can be designed and realized in the form of new organizational structures and cultures, systemic innovations, or collaborative educational forms. The final goal is behavior change.” (p. 009)

In another text preceding “Transformation Design”, Jonas (1996) elaborates on Design as Systemic Intervention. New systems thinking, based on second order cybernetics, provides tools for management theory and organizational development. Key are not new tools, but their intelligent combination, integration and application. The focus is on “discursive tools that structure the communicative process in design teams across disciplines and between stakeholders in the design process and make it transparent.” (p. 12) Discursive tools work hand in hand with the design process that should be linked with circular learning models, “where abductive PROJECTION is the neglected link in the cycle” (Jonas, n. d.). In order for design becoming a partner discipline as part of the network of future-designing disciplines, he advocates to think in terms of change processes versus incidents. Because the latter is caused by underlying structures, designers need to have new skills to uncover structural causes of patterns. Concluding: “Thinking in terms of change processes rather than ‘snapshots’ is yet another way.” (p. 19)

6. Discussion

So what? Starting with the question of “How might design influence organizational change and system behavior in organizations – understood as social systems?” we can say that the systemic intervention approach, which is already built on systems theory, offers a good heuristic to build upon a Strategic Design Planning competency aimed at organizational transformation. Driven by design theorists, design theory informed by systems theory is evolving, but related design education and design practice is lagging behind and disconnected from the real world of organizational and social
transformation. The change fields are pulling design by means of the design process and related methods, but it is to be seen how that strategy will be unfolding. The theory-informed design maturity trajectories point towards increasing complexity and scale, and ask for a yet to be developed competency set. Communication and dialogue as well as discursive tools are at the heart of setting purpose, principles and people in motion towards self-organization. The continuum from purpose to practices denotes zones of danger for moving a grand idea or dream or vision through many people without getting lost. Such settings ask for new ways to support designing evolutionary communities. Bate, Khan and (2000) observe that “design is a bare bones framework on which a more organic, emergent, social structure develops as people interact, argue, fall out, come together, and otherwise manage their day to day situation” (p. 199, cited in Weick, 2004). This observation then shifts the idea of design towards a relationship between scaffold – the bare bones – and sculpture – the form –, of which both need to be designed. From a planning perspective the scaffold is about organizing and managing and how-related competencies, and the sculpture is about designing and innovating and what-related competencies in the form of bricolage-like representations linked to agreements. An iterative oscillation between chaos and order, abstract and concrete, structure and identity, as in more traditional design projects, remains. The social activity of sense-making will to a large degree increase at the expense of strange-making (or differentiation), thus shifting Strategic Design Planning activities upstream towards corporate-wide, transformation oriented strategies. Strange-making will most probably disappear in favor of an increase in designing transitional moments and forms to guide and stimulate conversations and agreements, and keeping options open as long as possible. Thus a set of competencies might include strong planning skills for architecting a design space, strong skills in designing options of open formats, and strong skills of social attention, conversation and dialogue to sense dynamics that might need to be nurtured and adjusted. By addressing the structural part of organizational transformation, it seems an exponential increase and shift in knowledge and skills will be needed.

7. Conclusion

Looking from a Strategic Design Planning perspective on the converging fields of social systems (theory) and systems theory informed design (theory) offers a rich perspective on potential competencies for a design practice aimed at organizational transformation. Such a competency might complement an evolving innovation-oriented strategic competency of design. Organizational and social transformation designers can tap into a rich reservoir of approaches and skills, with the goal of intelligent combinations. Nevertheless, a lot more work is required to arrive at first, good heuristics to launch as prototypes into the world of organizations. This approach resonates well with Laloux’s principle of “listening to evolutionary purpose” of the organization as a principle for transformation (Laloux, 2016). We would add here a “listening to evolutionary purpose” of the evolving field of design.

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About the Author:

**Hans Kaspar Hugentobler** is a member of the management team of the BA Design Management International program and a senior researcher at the Competence Center Design & Management at Lucerne University of Applied Sciences and Arts in Switzerland. His current research interests concentrate on organizational transformation and business reconfiguration by means of design. He earned a Master of Design in Human-Centered Innovation Planning from the Institute of Design at Illinois Institute of Technology in Chicago. He holds a Diploma in Communication Sciences from the University of the Arts in Berlin, Germany, where he also studied Information Sciences at the Free University.