

Chaos generation managed through design thinking: A task model for the design professional

Christina Knudsen, Emilie Møllenbach

christina.knudsen@blixtdunder.com

Blixt & Dunder, Slagtebusgade 5A, 1715 København V, Denmark

Abstract

The task model presented here is a working vision for the design professional redirecting focus from the application of predefined project structures to a process of complex evaluation. The task model is developed through a hermeneutic analysis of the discourse applied by design professionals to their practice. The tasks identified provide both a new focus and direction to the value creation process, in which the design professional is engaged. The intention of this paper is to provide the professional practitioner with deeper insights into own design role and design agenda. It is suggested not to use standard processes, but rather focus on developing a set of design tasks for each unique project, where design thinking and methods are implemented in unique ways. Chaos generation through chaos management as *job to be done* by the design professional is the main argument of this paper.

KEYWORDS: design practice, task model, chaos generation, chaos management

Introduction to professional design practice

Today, the boundaries of design professionals have moved into the arena of *management and strategy* as a result of shifting societal and economical needs (Yee, Jefferies, & Tan, 2014), and design professionals are often employed by businesses and organizations in need of innovation or transformation. Designers are hired as problem solvers, where design thinking is applied in order to manage and solve complex organizational problems. The role of the designer has expanded, and the design professional now works as a *capacity builder* within client organizations in order to investigate and translate organizational complexity into design problems that can be solved by applying the design discipline and *designerly ways of knowing, thinking, and acting* (Cross, 2001).

The professional perspective on designers taken in this paper has been inspired by the work of Adams, Daly, Mann, and Dall’Alba (2011), where design thinking is framed as a *working*

organizational problem and visualise the essential characteristics of its complexity (Lawson, 1990).

Professional design practice requires the designer and the client organization to learn from each other, hence the design project is set up as a collaborative partnership, where the method of knowledge exchange between the designer and the client helps the design professional to design strategically (Ballie & Prior, 2014). The designer is seen as a new knowledge source that needs to connect to prior knowledge of the client as well as to be complementary to it (Acklin, Cruickshank, & Evans, 2012). Thus, the client needs to be engaged as a source of organizational knowledge.

An emotional connection is important, as it builds trust, which enables knowledge exchange between the design professional and the client organization, seen as users of knowledge (Guseynova, 2012). An open relationship between the design professional and the client requires the principles of participatory design (PD), where the establishment of *mutual learning* is an important aspect of the project (Eriksen, 2014). PD requires both the design professional and the client to be present and take part in the design work. Kensing and Blomberg has outlined three basic requirements for participation: 1) access to relevant information, 2) the possibility of taking an independent position on the problem, and 3) participation in decision making (1998, p. 172).

The design objectives of PD are proposed as prerequisites to reach a valuable outcome of the collaborative design project, and they have been used as outset for the hermeneutic analysis. For the analysis, the PD requirement have been framed as following: 1) gaining access to prior and new knowledge, 2) being empowered as an independent design professional (intrinsic motivation), and 3) having the opportunity to participate in decision making together with the client (extrinsic motivation). The identified design objectives have shaped the framework of the task model and thus, the working vision presented in this paper.

Method

The continuous development of a professional-way-of-being a designer requires an embodied presence in the *professional practice*, as described above. A design agency represents a professional work environment, and thus a digital design agency was chosen as the situated context for this research. The initial research question was framed as following: “How can the design process of the individual design professional be understood, when the design professional works towards a transforming idea as valuable outcome for a client organization?” An updated research question is presented in the conclusion, as a consequence of the research findings, and as a suggestion for future work.

This paper focuses on the internal design performance, though the embodied presence in a project context is stressed as a requirement to become and develop as a design professional. This study did not cover the external part but focused on the internal orientation of being, thinking and acting as a designer within the professional practice. Four interviewees were chosen based on their significance to the initial design phase, *the chaos stage*:

- a) Head of UX (UX designer) – she is in charge of the research approach and “process strategy” when a new client project kicks off.

intentional chaos generation in the task model. “Link building” represents the design objective of the methods applied by the professional in order to enable the individual “designer role” and “project role” – this objective is called *access to the client organization* in the task model. “Project role” represents “success to the project”, i.e. the extrinsic design objective of each design professional, when working together with a client on a project – this objective is called *prioritize the design decisions* in the task model.

Observing the different design objectives across table 1 made it clear that though the overall design objectives are the same, the individual approach varies between professional roles. This pointed towards a design process that pays attention to the overall objectives rather than individual objectives concerning the practical execution. The result is a task oriented design process model that collects all four professional roles within the scope of overall design objectives, framed as individual tasks. The final result in table 1 has inspired the tasks and shaped the task model presented below.

A task model

The task model presented in this paper is a visual illustration of the identified professional design objectives, which include: 1) access to client organization, 2) empower the design domain, and 3) prioritize the design decisions. A fourth objective has been identified as a further result of the insights generated, 4) intentional chaos generation. These objectives have been inspired from the PD requirements presented in the introduction and the thematic quotes found through the hermeneutic analysis.

The task model in figure 1 represents the work process of a design professional, when working through the initial and chaotic phase of a client project. The process begins at the project outset and is oriented towards the end goal of the designer, here defined as the *job to be done* (JTBD).

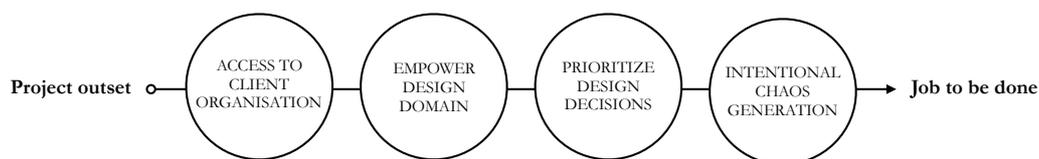


Figure 1 shows the task model for design professionals. The four design objectives provide guidance, when working from the project outset towards the *job to be done*.

JTBD is a theoretical concept first introduced by Christensen, Anthony, Berstell, and Nitterhouse (2007) and further developed by Osterwalder, Pigneur, Bernarda, Smith, and Papadakos in their book *Value Proposition Design* (2014). The job that needs to be done equals the fundamental problem that needs to be resolved, or finding the transforming idea. To the designer this means, that the *job to be done* is the end goal of working on a design project for a client organization.

Job to be done sets the direction of the project and guides the design professional towards own design role and own design agenda within each unique design project as this is not always clear initially. The design role and the design agenda develop within the scope of the professional practice, and within the scope of each design project. When seen through the intended framework of the task model, the end goal of the design professional is to investigate and deconstruct the organizational problem, while challenging and disrupting

“Access to the right people in the client organization” means that the design professional gains access to prior knowledge about the organizational problem. The right people are the knowledge users that need to be engaged in order to access the organizational thoughts behind the design project. This information is required for the professionals to shape their work processes and adjust their design agendas within the scope of the project. Organizational information is needed to set the project direction aiming at the end goal of creating a valuable outcome.

Task: empower the design domain

The second design task of the design professional is to *empower the design domain*, which refers back to the coding theme “designer role”. Here, the designer works as a *capacity builder* that needs to build up a deeper understanding of the design domain in the client organization. To the client organization, this means both a deeper understanding of the design domain of the organizational problem and a deeper understanding of the design domain that the design professional has been hired to represent.

When the UX designer is assigned to a client project, she works to represent the design domain of user-centred design with a strong focus on user research. Her design work is oriented towards user empowerment, where user inclusion is considered an important method. User inclusion is used to generate knowledge that will increase the client’s understanding of user needs, which is required to reframe the problem and identify the transformation potential of a solution space that proposes user value. She refers to it as providing a new business perspective or “taking a trip in the helicopter and seeing it all from a different perspective”.

When the IA designer is assigned to a client project, he works to represent the design domain of the user experience within the IT systems of the client organization. He often experiences that the client’s understanding of the problem is limited to the logic of the existing structures, and therefore it is important for him to challenge the structures of these IT systems. As he explains:

If they do not feel challenged, they are getting the solution they are asking for, and that is not what they are asking for – or, they do not always ask for what they really want.

The IA designer uses the perspective of the user experience to reframe the existing IT system, challenge existing assumptions, and make the client see the technology and its logic in a new way.

A better understanding of the design domain provides a better outset for knowledge exchange between the designer and the client, which is required to find common ground in the project. Empowerment of the included design domain focuses on both the client project and the client organization by reframing the problem and presenting new perspectives for the solution space that needs to be identified.

To *empower the design domain* means that the design professional works as a new knowledge source that connects to prior knowledge of the client organizations and complements it by translating own professional design domain into organizational discourse. Hereby, the designer creates a breeding ground for the design domain to exist and evolve within the organizational context of the client.

through the hermeneutic analysis of this research. Chaos generation should be understood as the intentional movement of project boundaries, where the problem situation is deconstructed and disassociated from the current design context. The intention of generating chaos is to detach the client from the original assumptions in order to create new organizational perspectives. Reframing the organizational problem is often required to guide the client towards new insight or “clear-sightedness”. The design professional uses deliberate and intentional chaos generation in order to both deconstruct and reconstruct the client’s perspective, while experiencing the problem first-hand as a new knowledge source.

Chaos generation is applied to the organizational problem in order to investigate prior knowledge of the organization. This requires the design professional to engage the organizational stakeholders as knowledge sources and tap into their existing organizational knowledge as a project resource. Design thinking is applied throughout the initial phase of the design project in order to connect to the users as a knowledge source and translate their knowledge into a shared project discourse, which provides new perspectives on the organizational problem. Here, the design professional works as a “translator”, where prior knowledge is reframed through the lens of design thinking and introduced as new constructs for the solution space. This brings the discussion back to what it means to act and think as a design professional:

[...] Not just knowledge and skill progression but how learning to become a designer involves ‘working in a different way’ such as different ways of looking at problematic situations, and provide insight into puzzling complexities such as how designers can simultaneously display the behavior of a novice in some parts of design work, while also displaying behaviors that are more characteristic of higher levels of expertise (Adams et al., 2011, p. 589).

The collaborative partnership between the designer and the client provides the workspace for the professional practitioner to *work in a different way* and act as a *novice* within the scope of the project. The design professional acts a novice in order to gather information as a new knowledge source, while simultaneously thinking as a design expert about how to apply design thinking throughout the design process.

To the UX designer intentional chaos generation means applying UX research methods that includes and engages the user. She engages with the users as a *novice* that needs to learn more about the organization and the problem. As she explains, “we need to understand the problem in order to see the potential as creative experts”. The UX professional needs to collect user insights as a design novice in order to construct the solution space as a UX design expert. “It means everything, to be inspired and get the (client) domain under the skin, being able to understand the real problems”, the UX designer says. She adjusts her methods along the way according to the scope of the design project, and also the budget of the client.

The approach taken by the UX professional exemplifies that the design project is a collaborative relationship that requires mutual engagement from both the design professional and the client organization. Implementation of design thinking requires the design professional to work with the client in order to understand the multi-level and multi-stakeholder processes of the organization (Acklin et al., 2012). Intentional chaos enables the designer to investigate the design situation, while learning about the organizational problem, and also trying to move the client in some direction. It is a work process, which requires continuously evaluation of the situation and the complexities that it presents to the professional practitioner.

Job to be done: chaos generation through chaos management

It is the finding of this paper that chaos management, as the *job to be done* by the design professional, sets the direction of the project and guides the designer towards own design role and own design agenda within each unique design project.

Chaos management is an essential aspect of the professional design practice, which implies that it is not enough to simply generate chaos. Chaos generation by itself would result in a fixed situation, where the problem stays deconstructed and detached from the project context. Chaos generation is introduced through chaos management, which entails both the introduction of chaotic processes and the reinstitution of new working orders as a consequence.

Chaos can be introduced and managed in a number of ways: through the introduction of new concepts; through directly challenging existing assumptions; through the introduction of alternative models for business, organization and practice; through new technologies; through new methods, and so on. Chaos management requires the designer to uncover meaningful ways to introduce chaos into the organizational understanding of the client context. The main purpose is to create a project context, where the client starts to deconstruct existing assumptions and construct new perspectives for the solution. The IA designer gives an example of how he works to introduce chaos by challenging the existing assumptions of the client:

Typically, the client's "specification of requirements" is delivered in an Excel document, where I need to see them more as clusters of requirements in terms of a "user story", and so I map the requirements in clusters in order to see which ones belong together. Then it is easier to break down the structures of the client in terms of their understanding of the website [...] but the input has to come from the client.

As the IA professional explains, the input for the work process comes from the client. Chaos is introduced to the prior knowledge of the client organization, which generates new insights through the design work of the professional. The work process takes place as knowledge generation in order to create diffusion within the client context. The designer works to empower multiple stakeholder domains of the organization, as described above under the task *empower the design domain*. This means that the designer needs to translate the different needs and the different languages of the client stakeholders in order to scope the project and construct a solution space that equals common ground for the people involved:

Service design projects should be perceived holistically as a process of knowledge generation and diffusion in a social context, involving a complex network of stakeholders. In our case studies the importance of managing this process via the facilitator role was frequently discussed, with designers recognized as being the "translator between all other parties...to bridge the different languages of the disciplines and to find common ground" (Yee et al., 2014, p. 71).

The end goal of chaos management is achieved by finding common ground. This requires translation of the needs expressed by the involved stakeholders throughout the working process of the project. Chaos is applied to the client as a method for intentional interaction, which generates input for the translation mediated by the design professional. Design thinking is used by the designer to evaluate methods and processes for intentional chaos generation applied to the client organization, which makes design thinking a management tool for the professional practitioner. Design thinking is implemented as a strategic tool for the designer to 1) identify the right conditions for chaos generation within the client context, and 2) manage the work process of turning the chaos input into a valuable outcome for the client project by *empowering the design domain* and *prioritizing the design decisions*.

The current use of design thinking are highlighting a professional management shift due to traditional management tools not being able to handle the complexities of new technical requirements. The professional boundaries of the design practitioner are shifting as demanded by the multi-level and multi-stakeholder processes of the client organization. The *job to be done* by the design professional is to mediate and translate the different domains of the client into a shared understanding of the problem and a new perspective on the innovation potential. The application of chaos managed by *designerly ways of knowing, thinking, and acting* generates the input for new perspectives, and thus chaos should be considered a resource for innovation managed by the designer as chaos manager; working to create a clear sight on a complex problem through the strategic implementation of design thinking.

Conclusion

The task model presented in this paper is a visual illustration of the identified professional design objectives as proposed by the PD tradition initially. Here, the objectives have been iterated and modified according to the empirical findings of the hermeneutic analysis conducted. The design objectives presented in the task model include: 1) access to client organization, 2) empower the design domain, and 3) prioritize the design decisions. A fourth objective has been identified as a further result of the insights generated, 4) intentional chaos generation. The model introduces the objectives as tasks that provide guidance in order to reach the end goal of a client project.

The tasks are not directly related, however they are bound together and informed together through the collaborative partnership of the designer and the client. This knowledge sharing and knowledge generation within the project happens through a loop of *intentional chaos generation*, which informs the design professional and helps to solve the tasks of *empowering the design domain* and *prioritizing the design decisions*. A prerequisite for being able to generate chaos is having *access to the client organization* and having access to the prior knowledge of the organizational stakeholders. The flow of all four tasks presents themselves to the designer as a process of *complex evaluation*.

The complexities of a design project require the professional practitioner to take on the role as task manager, where chaos management is the primary *job to be done*. The application of chaos managed by design thinking generates the input for new perspectives, and thus chaos should be considered a resource for innovation managed by the designer as chaos manager. A suggestion for future work is to gain a better understanding of chaos generation, and the loop of intentional interaction, by looking into “what happens between the designer and the client in the loop of chaos, when new insights are found, seen from the client’s perspective?”

This paper focuses on the internal design process of the professional practitioner. The task model presented introduces a working vision for the future professional design practice, where design thinking is implemented as a strategic tool to manage the complex work process of the professional designer. This professional perspective applies to design practitioners working within the scope of unique design projects in a collaborative partnership with a client organization.

References

- Acklin, C., Cruickshank, L., & Evans, M. (2012). Challenges of introducing new design and design management knowledge into the innovation activities of SMEs with little or no prior design experience (pp. 1–16). Presented at the 10th European Academy of Design Conference - Crafting the Future, Gothenburg, Sweden.
- Adams, R., Daly, S., Mann, L., & Dall'Alba, G. (2011). Being a professional: Three perspectives on design thinking, acting, and being. *Design Studies*, 32(6), 588–607.
- Ballie, J., & Prior, S. (2014). The strategic role of design in supporting knowledge exchange (pp. 446–450). Presented at the ServDes.2014 Fourth Service Design and Innovation conference, Lancaster, UK.
- Buchanan, R. (1992). Wicked problems in design thinking. *Design Issues*, 8(2), 5–21.
- Caddick, R., & Cable, S. (2011). *Communicating the user experience: A practical guide for creating useful UX documentation* (1st ed.). UK: John Wiley and Sons, Ltd.
- Christensen, C. M., Anthony, S. D., Berstell, B., & Nitterhouse, D. (2007). Finding the right job for your product. *MIT Sloan Management Review*, 48(3).
- Cross, N. (2001). Designerly ways of knowing: Design discipline versus design science. *Design Issues*, 17(3), 49–55. <http://doi.org/10.1162/074793601750357196>
- Emery, D. H. (1998). Managing yourself through change. *Inspired Leadership for Software People*, 1–8.
- Eriksen, M. A. (2014). What triggers us?! A close look at socio-material situations of co-designing services. Presented at the ServDes.2014 Fourth Service Design and Innovation conference, Lancaster, UK.
- Guseynova, N. (2012). Emotions in the design process: How to find an emotional touch point with the user (pp. 77–82). Presented at the ServDes.2012 Third Nordic Conference on Service Design and Service Innovation, Helsinki, Finland.
- Kensing, F., & Blomberg, J. (1998). Participatory design: Issues and concerns. *Computer Supported Cooperative Work (CSCW)*, 7(3-4), 167–185. <http://doi.org/10.1023/A:1008689307411>
- Kimbell, L. (2011). Rethinking design thinking part I. *Design and Culture: The Journal of the Design Studies Forum*, 3(3), 285–306.
- Lawson, B. (1990). *How designers think: The design process demystified* (2nd ed.). Architectural Press.
- Osterwalder, A., Pigneur, Y., Bernarda, G., Smith, A., & Papadakos, T. (2014). *Value proposition design: How to create products and services customers want (Strategyzer)* (1st ed.). Hoboken, New Jersey: John Wiley & Sons, Inc.
- Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4(2), 155–169.
- Stickdorn, M., & Schneider, J. (2012). *This is Service Design Thinking: Basics, Tools, Cases* (1 edition). Hoboken, N.J: Wiley.
- Wetter-Edman, K. (2014). *Design for service: A framework for articulating designers' contribution as interpreter of users' experience*. University of Gothenburg, Sweden.
- Yee, J., Jefferies, E., & Tan, L. (2014). Brave new worlds: Transitions in design practice (pp. 67–78). Presented at the ServDes.2014 Fourth Service Design and Innovation conference, Lancaster, UK.