

# A conception toward design narratives for innovation

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## Abstract

Narrative has increasingly come to the forefront of both design and innovation management fields due to its essential properties which comprise both a human cognitive process (Polkinghorne, 1988) and a mode of communication (Fisher, 1985, 1987; Bruner, 1986). However, cross-disciplinary arguments among design studies and innovation management from the narrative point of view are yet unexplored, even though their essential importance and potential for impacting innovation. Therefore, this paper aims to conceptualize a theoretical framework of "Design Narratives for Innovation". Based on the approach to building a theoretical framework in qualitative research (Anfara Jr, et al, 2015), the building blocks of the theory are carefully investigated and constructed. Through interdisciplinary conceptualization among design studies, innovation management studies and narrative studies after the contextual review (Gray and Malins, 2004), the conception is precisely stated; that is "the Design Narratives (DN) as worldmaking can facilitate and coordinate the design innovation process of co-evolution of problem and solution". The theoretical framework can perform as "analytical and interpretative framework that helps the researchers make sense of what is going on in the social setting being studied" (Mills, 1993). Then, this theoretical framework can also guide "the way in which you think about, collect, analyze, describe and interpret" the data in the qualitative research, which the researcher plans to conduct as the sequential research activities.

## Author keywords

Design narratives; Innovation narratives; Worldmaking; Innovation process, Design process

## Introduction

Narrative has increasingly come to the forefront of both design and innovation management fields due to its essential properties which comprise both a human cognitive process (Polkinghorne, 1988) and a mode of communication (Fisher, 1985, 1987; Bruner, 1986). As a "linguistic turn", narrative has been studied as a theoretical view and tool in organizational studies, strategy, innovation, and entrepreneurship (Barry and Elmes, 1997; Bartel and Garud, 2009; Boje, 1995; Lounsbury and Glynn, 2001). However, research on narrative in management has mainly emphasized the company's perspective, largely overlooking the potential counterpart, design, as a key interpreter of the company's narrative (Zurlo and Cautela, 2014). As Bartel and Garud (2009) have stressed, in the con-

text of the innovation process, narrative facilitates coordination among different participants by enabling translation. In this sense, design, as a counterpart of the company's narrative, can play an important role in coordination through creative practice (Lloyd and Oak, 2018; Zurlo and Cautela, 2014).

The Ph.D. research aims to explore how design narratives can have a deep impact on the innovation process. In this short paper, the author builds a conceptual framework to analyze the mechanism of design narratives in the innovation process. This framework intends to be a basic analytical lens for the consequent qualitative analyses in the Ph.D. research path.

## CONTEXTUAL REVIEW / THEORETICAL FRAMEWORK

### Contextual review and problematizing the central phenomenon

The theoretical framework is based on the growing argument of narrative, which has been significantly nurtured and critically analyzed in both design and management disciplines over the last decades.

In management studies, "linguistic turn" has a long tradition. In organizational studies, narrative has directed several principal research areas such as sensemaking, communication, politics and power, learning/change, and identity (Rhodes and Brown, 2005). Similarly, many scholars in strategy have investigated the narrative perspective, especially in the fields of strategy as practice and strategic change (Barry and Elmes, 1997; Brown and Thompson, 2013). During the past ten years, the growing interest in the innovation and entrepreneurship processes has attracted focus on the relationships between narratives and innovation, and between narratives and entrepreneurship (Bartel and Garud, 2009; Lounsbury and Glynn, 2001; Maclean et al. 2020).

Meanwhile, in design studies, narratives and storytelling have been widely researched with respect to creative and design processes, strategies in productive contexts, participatory design processes, and narrative experience by produced artifacts (Ciancia et al., 2014; Grimaldi, 2018; Lloyd and Oak, 2018; Turner and Turner, 2003; Zurlo and Cautela, 2014). Especially in a company's productive context, Zurlo and Cautela (2014) argued that designers can be considered as "hub-narrators" who are part of the interconnection between the so-



cial-cultural models expressed by the consumption communities and the material production models organized by the companies. These are essential abilities and can potentially amplify, multiply, translate, or change a narration. Therefore, this series of arguments on narrative and storytelling in design studies can potentially release the capacity of the company's innovation process regarding the innovation narrative argument in business studies.

The importance of the relationship between the innovation narrative and a designer's narrative role has been pointed out in design studies (Zurlo and Cautela, 2014). However, the mechanisms of how the design narratives can play their role in the innovation process have been yet overlooked. This Ph.D. research aims at filling this gap: how can design narratives have a deep impact on the innovation process. This gap exists between the extant literature on narrative in management and design studies. Addressing this gap can help us investigate the central phenomenon (Creswell, 2012) to be investigated through the qualitative research method: the narrative usage by design in the innovation process.

### Constructing the conceptual framework to look at the central phenomenon

The main assumption is that the Design Narratives (DN) can deeply affect the innovation process. To tackle on the problematized central phenomenon above, a conceptual framework should be constructed as a theoretical lens to approach the phenomenon. Through interdisciplinary conceptualization among design studies, innovation management and narrative studies after the contextual review (Gray and Malins, 2004), the main premises and assumptions are interwoven as followings.

#### Premise 1: Design as discursive activity

The first premise is related to the perspective on the design activity. One of the difficulties in understanding design is its multifaceted nature. There is no single way of looking at design that chapters the "essence" without missing some other salient aspects, therefore, conceptual design should be considered as a way of "seeing as" (Lawson and Dorst, 2013). In this research, as looking towards the design process from narrative view, there is validity and rationality to rely on a specific perspective of "design as discursive activity" (Dorst, 2006). In this mode, instead of assuming design as problem-solving paradigm, it describes the design as the resolution of paradoxes between discourses in a design paradox. Historically in design studies, many scholars have indicated the perspectives of design as a discursive view (e.g. Schön, 1983; Lloyd, 2000; Bolanda and Collopy, 2004). In parallel, this perspective also overlaps with the series of arguments of business management fields regarding "narrative turn" which emphasized on the perspective of viewing phenomena from narratives and discursive views (e.g. Barry and Elmes, 1997; Rhodes and Brown, 2005). Therefore, this study relies on the perspective of "design as discursive activity".

#### Premise 2: Narrative as worldmaking

The second premise is based on how to define the term of "narrative". Several essential aspects of this study are needed to be taken into consideration; (1) to aim to explore and build the theoretical foundation of Design Narratives (DN) as

a study type of basic research, (2) to rely on the world view of social constructivism (Berger and Luckmann, 1967) and interpretivism, and (3) to tackle on cognitive and social constructing aspects of the central phenomenon of the roles of Design Narratives in design innovation process. Here, the essential theoretical development by narrative scholar David Herman (2013) has validity and reliability to be chosen as the basement of this study; namely, "narrative as worldmaking". Herman (2013) theorized the concept of narrative as "worldmaking" through a transdisciplinary approach to storytelling and the sciences of mind. The idea of narrative worldmaking is a central heuristic framework and the hallmark of narrative experience, the root function of stories and storytelling that should therefore constitute the starting point for narrative inquiry and the analytic tools developed in its service (Herman et al., 2012). Herman et al. (2012) underlines that to focus on narrative worldmaking studies how storytellers, using many different kinds of symbol systems prompt interpreters to engage in the process of co-creating narrative worlds. Herman (2013) suggested two-side approach to narrative worldmaking; narrative as a target of interpretation-Worlding the story- as well as narrative as a resource for sense-making – Storying the world. Thus, this study relies on the definition of narrative as worldmaking with the two-side approach from narrative studies, especially from the nexus of narratology and mind.

#### Conceptual component 1: Design Narratives as worldmaking

Based on the two premises above, one of the core conceptual components – and the central concept of this research – can be set; "Design Narratives (DN) as worldmaking". This concept is the central proposal of this research to be precisely explored and investigated through whole the series of following research activities. In the Ph.D. research, narratives by design are considered as a worldmaking mechanism, which is composed of two-side conceptual components of "narratives as a target of interpretation" and "narratives as a source for sense-making" especially from "design as discursive activity" viewpoint.

#### Conceptual component 2: the design innovation process as co-evolution of problem and solution

Meanwhile, the design process or innovation process regarding design should be defined as a part of the essential components of the theoretical framework. Here, the first premise of "design as discursive activity" provides a firm basement for the argument. Dorst and Cross (2001), underlining this perspective, insisted on the model of "co-evolution of problem and solution". This model emphasizes the specific aspect of discursive view that the co-evolution is facilitated with interchange of information between the two spaces. In conclusion, there is certain validity and rationality that this study views design process or innovation process by design as "co-evolution of problem and solution" from "design as discursive activity" viewpoint.

#### The conceptual framework

Consequently, the conceptual framework can be elaborated with the two core conceptual components based on the previous two premises. The main assumption is precisely updated; that is the Design Narratives (DN) as worldmaking can facilitate and coordinate the design innovation process of co-evolution of problem and solution. To visually simplify this assumption,

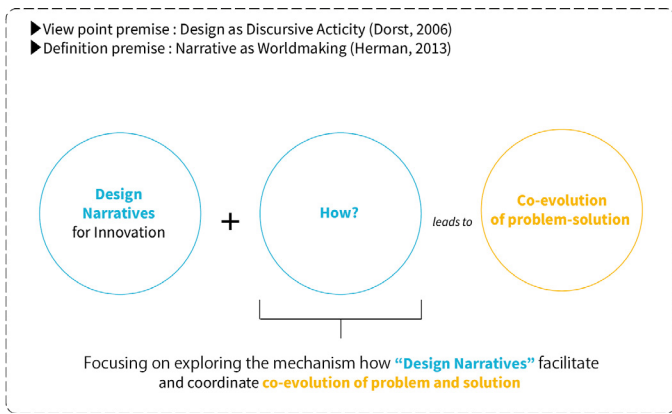


Figure 1. Visualization of the logic structure of the PhD research.

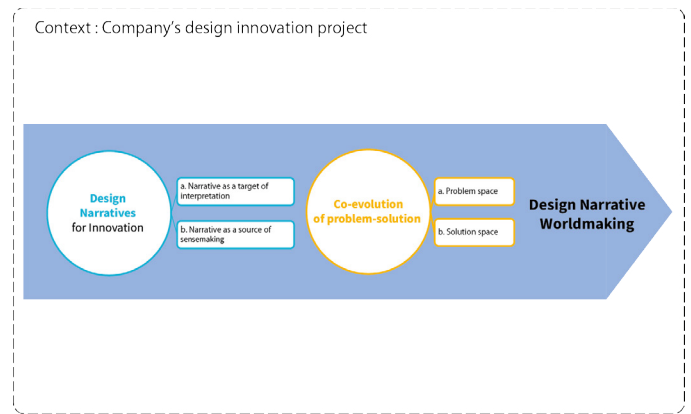


Figure 2. Construction of the conceptual framework to look at the central phenomenon.

figure 1 represents the logical model as well as figure 2 shows a visual representation that the research focuses on.

### Conclusion

This paper proposes a theoretical framework of design narratives for innovation, based on contextualized and problematized research gaps (Gray and Malins, 2004). The framework can perform as an "analytical and interpretative framework that helps the researchers make sense of "what is going on in the social setting being studied" (Mills, 1993). It can also guide "the way in which you think about, collect, analyze, describe and interpret" the data in the qualitative research. Especially, since the research gap is transdisciplinary, researchers need an appropriate compass to explore the social setting and the central phenomena. In this vein, the constructed framework-based on the core idea of "narrative as worldmaking" in-

terwoven by narrative scholar Herman (2013)- is significantly meaningful; because Herman's idea was generated from a transdisciplinary approach to "foster a more open dialogue between narrative studies and related fields such as social, cognitive, and ecological psychology, linguistics and semiotics, communication theory, ethnography, artificial intelligence and robotics, the philosophy of mind, and other areas that fall under the umbrella field of cognitive science" (Herman, 2013). Combining with another assumption of the design and innovation process as "co-evolution model", the theoretical framework of "design narratives as worldmaking" can not only perform as a compass of the qualitative research but also can stimulate further research in the areas which is important but yet unexplored to be needed investigation (Anfara Jr et al, 2015).

## References

- Anfara Jr, V. A., & Mertz, N. T. (Eds.). (2014). *Theoretical frameworks in qualitative research*. Sage publications.
- Barry, D., & Elmes, M. (1997). Strategy retold: Toward a narrative view of strategic discourse. *Academy of management review*, 22(2), 429-452.
- Bartel, C. A., & Garud, R. (2009). The role of narratives in sustaining organizational innovation. *Organization science*, 20(1), 107-117.
- Berger, P. L., & Luckmann, T. (1967). *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, rpt. Doubleday/Anchor. Garden City, NY.
- Boje, D. M. (1991). The storytelling organization: A study of story performance in an office-supply firm. *Administrative science quarterly*, 106-126.
- Boje, D. M. (1995). Stories of the storytelling organization: A postmodern analysis of Disney as "Tamara-Land". *Academy of Management journal*, 38(4), 997-1035.
- Boland, R., & Collopy, F. (Eds.). (2004). *Managing as designing* (pp. 3-18). Stanford, CA: Stanford business books.
- Brown, A. D., & Thompson, E. R. (2013). A narrative approach to strategy-as-practice. *Business History*, 55(7), 1143-1167.
- Bruner, J. (1986). *Actual minds, possible worlds*. Harvard University Press.
- Ciancia, M., Piredda, F., & Venditti, S. (2014). Shaping and sharing imagination: designers and the transformative power of stories. H. MOURA; R. STERNBERG; R. CUNHA; C. QUEIROZ, 37-46.
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, 4th Edition, Pearson
- Dorst, K., & Cross, N. (2001). Creativity in the design process: co-evolution of problem-solution. *Design studies*, 22(5), 425-437.
- Dorst, K. (2006). Design problems and design paradoxes. *Design issues*, 22(3), 4-17.
- Fisher, W. R. (1985). The narrative paradigm: In the beginning. *Journal of communication*, 35(4), 74-89.
- Fisher, W. R. (1987). *Human Communication as Narration: Toward a Philosophy of Reason, Value, and Action* (Columbia, SC. University of South Carolina Press.
- Fisher, WR (1973). Reaffirmation and subversion of the American Dream. *Quarterly Journal of Speech*, 59(2), 160-167.
- Gray, C., & Malins, J. (2004). *Visualising research: A guide for postgraduate students in art and design*. Ashgate Pub.
- Grimaldi, S. (2018). *Design for Narrative Experience in Product Interaction*, PhD Thesis, University of the Arts London
- Lawson, B., & Dorst, K. (2013). *Design expertise*. Routledge.
- Lloyd, P. (2000). Storytelling and the development of discourse in the engineering design process. *Design studies*, 21(4), 357-373.
- Lloyd, P., & Oak, A. (2018). Cracking open co-creation: Categories, stories, and value tension in a collaborative design process. *Design Studies*, 57, 93-111.
- Lounsbury, M., & Glynn, M. A. (2001). Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic management journal*, 22(6-7), 545-564.
- Maclea, M., Harvey, C., Golant, B. D., & Sillince, J. A. (2020). The role of innovation narratives in accomplishing organizational ambidexterity. *Strategic Organization*, 1476127019897234.
- Mills, G. E. (1993). Levels of abstraction in a case study of educational change. In D. J. Flinders & G. E. Mills (Eds.), *Theory and concepts in qualitative research: Perspectives from the field*. (pp. 103-116). New York, NY: Teachers College Press.
- Polkinghorne, D. E. (1988). *SUNY series in philosophy of the social sciences. Narrative knowing and the human sciences*. State University of New York Press.
- Rhodes, C., & Brown, A. D. (2005). Narrative, organizations and research. *International Journal of Management Reviews*, 7(3), 167-188.
- Schön, D. A. (1983). *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books.
- Turner, S., & Turner, P. (2003). Telling tales: understanding the role of narrative in the design of taxonomic software. *Design Studies*, 24(6), 537-547.
- Herman, D., Phelan, J., Rabinowitz, P. J., Richardson, B., & Warhol, R. (2012). *Narrative Theory: Core Concepts and Critical Debates*. Ohio State University Press. <http://www.jstor.org/stable/j.ctt1rv6256>
- Herman, D. (2013). *Storytelling and the Sciences of Mind*. MIT press.
- Zurlo, F., & Cautela, C. (2014). Design strategies in different narrative frames. *Design Issues*, 30(1), 19-35.