

'Design doing': what if we put more design into design thinking?

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Abstract: Today's organisations are increasingly shifting their innovation processes from a top-down approach to bottom-up collaborative practices. These activities can involve multiple kinds of stakeholders that can vary from employees of different departments of the same company to potential final users of the new product/service to be developed.

The processes adopted are usually identified as 'design thinking', because they take advantage of a set of principles drawn from the design discipline (Kolko, 2015). Hence, many companies are building in-house design capabilities or seeking design consultancies to accompany them throughout the process (Muratovski, 2015).

This paper intends to draw a first context framing of the current situation around the topic in Italy, obtained as a result of a desk and field investigation. Moreover, it sets the ground for the analysis of the impact of such collaborative practices and their outcomes: why organizations are looking to design to innovate? What are their main goals while adopting collaborative design processes? How does design deal with such processes?

These are some of the questions that set the criteria to understand the attributes of 'design doing' which is the ambition of my Ph.D. research: a new course of action able to boost the design potential in organisations approaching collaborative innovation, in order to make it result-oriented more than process-driven and therefore more impactful.

Keywords: design thinking, co-design, service design, innovation

Introduction

The concept of this paper starts with an intuition coming from my professional experience as designer within different companies approaching design thinking. As a designer, I felt frustrated by the fact that what was called 'design thinking' often didn't have so much to do with design and, in a certain sense, felt the responsibility to understand more. This finally led me to devote my Ph.D. to that. This paper is the result of the first desk and field investigation and has the aim of drawing a first understanding of the current situation around the topic. That sets the 'area of experimentation' and intervention of the future actions of my Ph.D.

The doctoral research would indeed critically discuss the way we use design thinking, from a designer's point of view.

The first section presents a theoretical background and the context in which the question raise. The second section unfolds the research methodologies adopted and introduces the scheme of the field investigation.

The third section discusses the results of the field investigation, comparing the findings with literature references.

The fourth section develops some reflections that come out from the issues discussed in the previous section. Those reflections suggest 4 further research directions and questions that needs to be investigated in order to go forward with the study.

Theoretical framework

Design thinking has originally been proposed as an approach to face wicked problems (Buchanan, 1992) and therefore identified as a creative problem-solving technique that makes use of a set of a design principles. During the time, the characteristics of this approach have been outlined by multiple authors, everyone framing a similar meaning but giving different interpretation and describing it in several ways.

Most agrees on defining it as an alternation of divergent and convergent phases, where divergence means broaden possibilities of solutions and convergence indicates selecting and pursuing one concept (Brown, 2009). This dimension of design thinking is commonly represented as a 'double diamond' made of two subsequent pair of divergent and convergent stages. Here came the distinction between a first 'diamond' embodying the problem definition and a second one framing a concept for a solution. Those 'diamonds' compose a process that is likewise articulated in four-stage: discover, define, develop and deliver (Design Council, 2005).

Another important dimension of the design thinking approach is iteration, on which IDEO, the well known design-driven innovation firm, has built the circular formula made of inspiration, ideation and implementation (Brown, 2008).

The model proposed by Stanford d.school retraces the features above, shifting the focus on user-centricity and prototyping. This time the steps are five: empathize, define, ideate, prototype and test (d.school, 2015).

Every one of these formulations focus on a peculiarity of the approach, without going against the other models but instead complementing them and highlighting a different attribute.

However, in all cases, the aim is to provide design methods and tools to be used for innovation purposes. That is often interpreted as anyone is given the 'design wand' and therefore is entitled to call himself a 'designer'.

Clear evidences of this phenomenon can be easily found among private companies and consultancies.

Designers facing design thinking as 'buzzword'

Companies have been approaching innovation in many different ways over time.

Nowadays it is a matter of fact that many companies are exploring innovation with approaches that most of the time imply collaboration among employees and the application of design methods and tools. In the same way consultancies are catching the need and therefore expanding their offers in order to be competitive. Within this spectrum, there are some consultancies which built from the beginning their core offer upon design and are

acknowledged to be top players in this field. But there are even consultancies that are renowned for being business-oriented and are now experimenting new formats around design. The formulas can be different: either they build internal competences or they acquire already established design agencies. Whether for companies the strategy is either building in-house competences or to being supported by a consultancy supplier (Muratovski, 2015).

All those design methods and tools are usually identified as 'design thinking' (Kolko, 2015).

Design thinking in recent years has become a real trend in the innovation environment and has been around already for some time, therefore there are some authors which are starting to assess whether it has been successful or not and which kind of impact it actually generated.

While Kimbell (2011) accused design thinking to be undertheorized and unstudied Nussbaum, already in 2011, advocated that design thinking was a failed experiment even in practice. He argued that the problem was that companies packed it as a linear process, without keeping the messiness which was the peculiar and intrinsic component of it: "in order to appeal to the business culture of process, it was denuded of the mess, the conflict, failure, emotions, and looping circularity that is part and parcel of the creative process" he stated (Nussbaum, 2011).

For Nussbaum, that was the reason of such a low success rate for design thinking. But today, after 6 years from his statements, we are still observing companies struggling to introduce design thinking inside the organization and some of them, at least in Italy, are experiencing it for the first time.

Therefore, there is still something appealing about it and the conversation is still open.

Following Nussbaum, other authors framed the possible reason of an eventual failure. Coyle (2017) reclaimed Nussbaum thoughts arguing that what companies are not likely to buy is design thinking as something fuzzy as a 'mindset'. Some others, like Vassallo (2017), are invoking not to become slave of the user-centricity seen as "asking users what they want and then trying to give it to them" but rather fostering to build evidence-based solutions, making use of data instead of solely empathy.

I personally have a less radical opinion on what can be done to 'fix' design thinking. Not everything has to be reframed, but for sure there are some adjustments and adaptations that can make design thinking more digestible for companies without denaturing it, whether being a process, an approach or a mindset.

Trying to introduce design thinking in a highly structured company with a 2-day workshop could be quite naïve and probably we need to investigate more in understanding the right formula for a win-win encounter between business and design. And perhaps we have to accept that it is a gradual process and can't happen all of a sudden.

Instead of looking at the trendiness of design thinking just as a threat for the professionalism of designers (Muratovski, 2015), we can try to take advantage of the seed of a common language to really enact the transformation and make it become effective.

Research Methods

Within the context depicted, Italy is no exception. Today, if you talk about innovation inside a company in Italy, you will be likely listening to people saying that they are experimenting 'design thinking' and participating to workshops in order to collectively produce new ideas about a specific product/service. Therefore, I started an investigation aimed at creating an

empirical understanding of how companies and consultancy are moving their steps into the design field.

The information gathered for this paper has been obtained by semi-structured interviews with key actors on the topic, identified within the organizations considered. The selection of the organizations has been done according to a preliminary desk investigation on relevant players within the area of research, then selecting at least one for business type (company, design agency and other consultancies).

The interviews have been carried out between March and May 2017 with a duration of around 1 hour each.

The protocol was of semi-structured interviews where I played a declared role of interviewer. I structured the interviews aiming to investigate three main aspects: the level of adoption of design thinking including critical situations, the role played by design and designers in the process, different purposes and interpretations given to the approach.

Table 1: Interviews scheme

Interviewee name	Affiliation	Business type	Acronym
Giuseppe Attoma	CEO e Senior Design Strategist at <i>Attoma</i>	Design agency	G.A.
Pietro Curtolillo	Customer Experience Design Manager at <i>Vodafone Italy</i>	Company	P.C.
Enrico Girotti	Head of Design at <i>H-Farm in HIC</i>	Design agency	E.G.
Gianluca Loparco	Digital Transformation Service Line Leader at <i>Deloitte Digital</i>	Design agency	G.L.
Franco Guidi	Founder and CEO at <i>Lombardini22</i>	Other consultancy	F.G.
Pierpaolo Peretti	Partner, Coach e HR Consultant at <i>Mida</i>	Other consultancy	P.P.
Fabio Salierno	Head of the Experience Design Lab at <i>Intesa Sanpaolo</i>	Company	F.S.

Ingredients for ‘design doing’

The following paragraphs outline 4 initial issues raised by the experience of 7 practitioners that work with design thinking within private organizations.

The scope of the investigation was trying to identify both the benefits and the limits that the interviewees faced using design thinking. Those will be the starting point to analyze further which are the aspects that foster success versus the ones that inhibits its adoption.

The issues outlined below reflect some of the challenges that design thinking – or design in general – needs to face in order to set the ground for evolving the practice. I believe that starting from these arguments and more to come, we could develop the ingredients for a new framework to be tested, that in this paper I will call ‘design doing’.

Teambuilding or Innovation?

The approach proposed by design thinking embeds two peculiar aspects: one is related with the collaborative way of doing things, while the other one focuses on a specific methodology aimed at shaping innovative products/services.

These two complementary aspects generate different interests by the departments inside a company: people working with human resources are highly attracted by design thinking as a new way of making employees collaborate cross-departments, while people working with the releases of new products/services (R&D, Marketing, Innovation etc.) are interested in the design and innovation proposition of the approach.

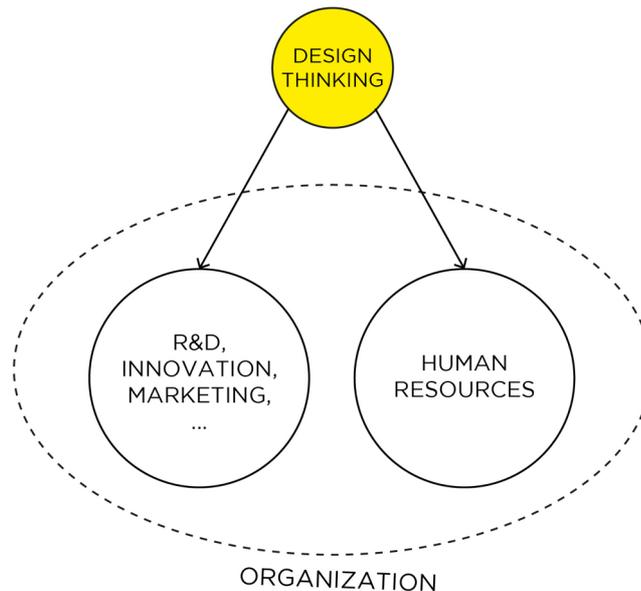


Figure 1: design thinking within organizations

These different interpretations often cause some confusion on the final objective of design thinking, finally making everyone not fully satisfied with the result. As G.A. states: “for a consultancy, it happens many times that requests come from different departments of the client company that share the same budget. In those cases you have to make compromises that weaken the success of the consultancy activity because interests are not aligned and often conflictual”.

The collaborative aspect sometimes is so evident that there are companies that uses the term ‘design thinking’ to identify the way the employees internally work and interact. An example is given by F.G., who even added ‘design thinking’ as a pay-off in his company name: “we have added *design thinking* to our brand from the beginning because that has always been our way of working”.

But the higher level of application of design and design thinking for human resources purposes is represented by P.P. P.P. works for a consultancy firm that offers services to the HR departments inside companies. He got fascinated by design thinking and service design, so he started to gradually introduce them within the consultancy and today they are completely embedded inside their activities: “what was really attractive for Human Resources was the humanisation of the process of design thinking...before that there were other methodologies

for problem-solving purposes coming from total quality management, but those were engineering approaches, which were not interesting for HR.”

Moreover, the idea of a more human-centric process for designing and delivering products and services makes people happier with their workplace (Kolko, 2015).

P.P. is aware of the ‘design-specific’ aim of those methodologies but he consciously uses them for training purposes: “in our DNA there is the strong belief that a project is an experience of learning”.

Reframing the problem

Another peculiarity related with the use of design thinking seems to be the aim of generating new innovative ideas. What is not that common or trendy instead is: what for? In many cases the definition of the brief on which to start the idea generation is a very fast and marginal step: “people inside companies tend to simplify the design thinking process, defining it as a way to find innovative ideas or experiencing a new way to collaborate, without understanding that it is just a part of the entire process” claims E.G.

In order to reinforce the importance of defining meaningful problems to solve, E.G. has started reframing the way his team works with the client during the brief definition.

Within the various format of application of design thinking that usually starts from a defined brief, E.G. is introducing a pre-session of co-design with the client uniquely dedicated to shape the brief and understanding the real problem to be solved.

Also F.S. has to deal with the same concern. He claims that he was really inspired by a talk he attended within an international conference: “I was impressed by the speaker showing an extension of the traditional double-diamond graph, adding two smaller double-diamond at the beginning and at the end of the process. There I founded the visual explanation of the way we are working in our team, indeed we dedicate a lot of time doing research to define a relevant brief.”

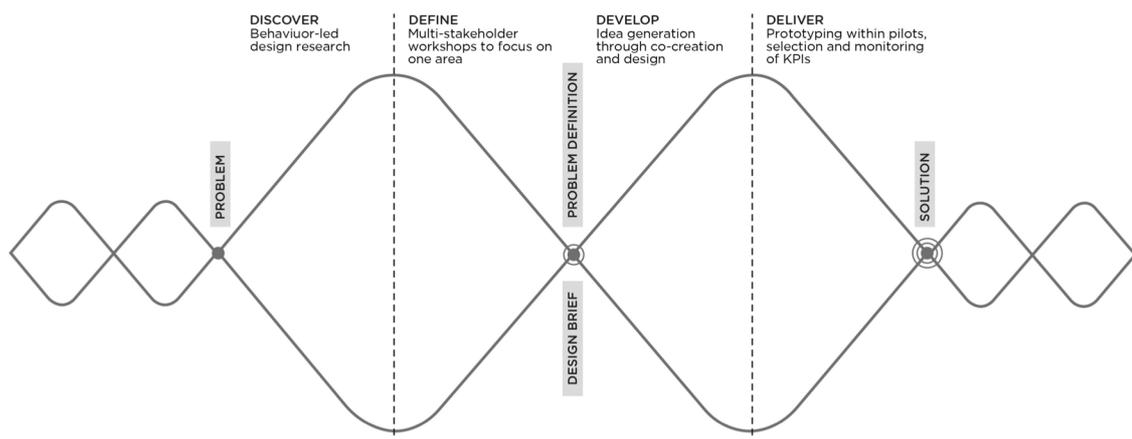


Figure 2: ‘extended’ double diamond

G.A. gives a specific definition to this practice: “It’s a collaborative mediation of the need. I talk about mediation because it deals with helping the decision-makers to decide to make a conscious choice and to decide for one direction, that will be pursued in an effective and measurable way. My proposal would be: let’s start applying the design thinking methods to understand the problem we want to solve, instead of using them to produce more solutions”. This concept has a lot to do with the definition of “innovation of meaning” expressed by Verganti (2017): “a *novel* vision that redefines the problem worth addressing. It takes innovation one level higher – not only a new *how* but especially a new *why*: it proposes a new reason why people use something. A new value proposition, i.e., a novel *interpretation* of what is relevant and *meaningful* in a market. A new direction.”

Need to measure and business competences

Almost all the interviewees highlighted as one of the biggest challenge of the design thinking approach the lack of measurement features.

There are some consultancies that are trying to find a solution to this issue in order to comply with business needs, as G.L. states: “The major difficulties we usually face with clients are related with measuring and assuring effectiveness of these activities: companies are increasingly asking rapidity and quick win solutions that can have a clear impact on the business level. Companies often struggle to evaluate the impact of this discipline within the organization: it is indeed a transversal discipline, therefore the variables that influences it are various and they influence different metrics, both quantitative and qualitative which can be related either to business or to the user experience.”

This issue can probably be extended also to the service design practice or design in general and it is not limited to consultancy, but it is felt even by specific structures inside the companies. F.S. indeed, who is the head of the Service Design team within a big Italian banking and insurance company, points out the lack of specific KPIs to evaluate service design.

With regards to this topic, the most repeated argument about the integration of design in business environment is that designers lack basic business competences and language.

A meaningful contribution about this idea comes from P.C.: “The hardliner approach in a designer doesn’t work. What is working is simplicity and pragmatism. Designers inside companies have to face two clients: one is the end-user and the other one is the company itself. I position myself in the middle. I think that designers don’t know how to argue effectively the benefits of design within a company. We are missing the profile of a designer who also own business competences.”

This is really a major issue, raised even during the Advisory Board of the course in Product Service System Design at Politecnico di Milano (2017), which was composed by professors, practitioners and researchers in the field of Service Design.

Giving Continuity

Everyone can agree that after a design thinking workshop, beyond some scepticism, there is overall a relevant dose of excitement and optimism. The problem is that often those feelings slowly decrease over time when employees come back to their desk and are supposed to apply their brand new design thinking skills on their day-to-day activities.

P.P. identifies this weakness in the practice of the competitors, therefore he built their distinctive asset on that: “we guarantee to lead and accompany the change within the

organization, going beyond the experiential formula of the *hackathon* used by many competitors, which is really impressive on the emotional level, but has less impact on the organization itself. Sometimes these activities generate even the opposite effect because people produce a lot of material that unlikely enters inside the organization, causing frustration in people who participated.”

Even in the experience of P.C. the biggest challenge of design thinking in organizations is “to give continuity to these activities. In order to give continuity the motivational component is crucial and to achieve it we would need a cultural change, which is the most difficult challenge.” For E.G. this issue is crucial for his team and solving it is one of his main mission. Therefore, he started to make different integrations to the process they usually follow.

He divided the process in: PRE-DURING-POST.

- The PRE phase is intended to co-design the initial brief with a core team of the client side;
- The DURING phase is dedicated to the workshop itself, based on the agreed brief and aimed at reframing it in 4 more detailed and focused ones. This phase involves a larger group inside the company;
- The POST phase is a program of guidance and review with the client throughout the development of the projects responding to the briefs. This program ends with the development of raw prototypes that will be presented to the management board.

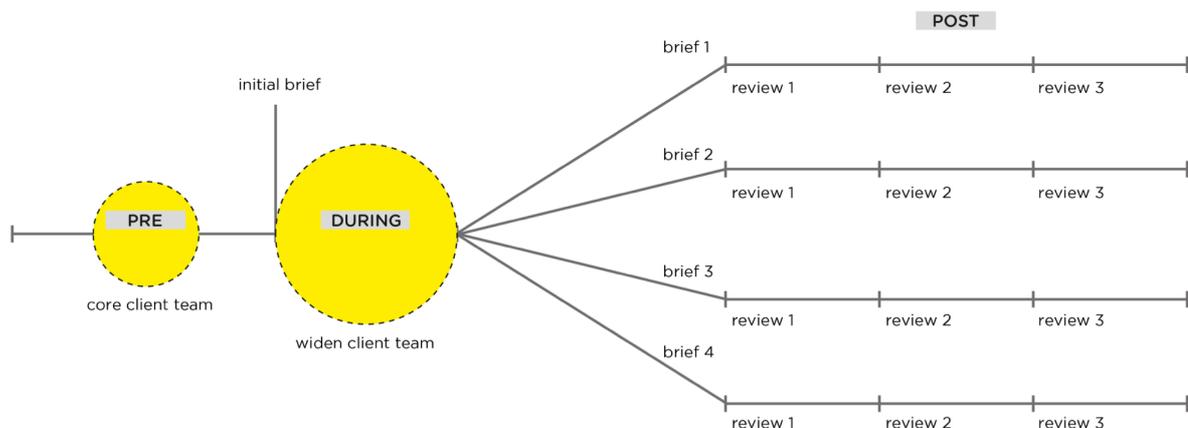


Figure 3: new process workflow according to E.G.

This new format represents for E.G. a first attempt in trying to come out of the process with tangible outcomes and finally answer to the client question: “How do we quantify the return of investment?”

Conclusions

Of course, all these issues deserve further investigation, research and experimentation in order to become guidelines for a new practice, but they represent a starting point for a discussion.

In general, we can say that most of the reported weaknesses brings us back to reinforce some of the core premises of the design practice, which have probably been oversimplified in order to meet the business constraints. Starting from the 4 issues depicted above, we can finally envision 4 initial directions to be further explored.

First of all, we all need to be more honest when understanding what is the real reason why we start doing something, like a design thinking path. It should be clear that there are specific methods that have been studied and designed for likewise specific purposes, so we need to make sure we are using the right process for a very clear purpose. How could we use design methods in a more aware and proper way, in order not to affect the credibility of the design profession (Muratosky, 2015) and the quality of the result?

Secondly, we have to ensure to dedicate the right amount of time and effort to understand the exact question we want to answer and therefore the specific problem we want to solve. That might require more time than looking for solutions. What is the right way to frame problems? And how to engage stakeholders in something that sounds so frustrating?

Thirdly, we need to find a way to assess the business potential of the solution or at least to motivate why it can't be measured in quantitative terms. Meaning that if it's true that designers need to learn how to speak the business language, it is also true that "organizations that 'get' design use emotional language (words that concern desires, aspirations, engagement, and experience) to describe products and users" (Kolko, 2015), therefore they don't need quantitative evidences. Hence, the question is: how can we evaluate the outputs of these processes? And: it is correct to look for KPIs to measure design thinking or should we educate organizations to accept ambiguity?

Lastly, what would push design thinking a step forward is demonstrating that the results are tangible and meaningful. In other words, 'getting things done'! How can we give back to designers their role of 'proponents with contents' (Selloni, 2017), which goes far beyond facilitation, and let them lead design initiatives and prototype real solutions?

In general, does this means restoring and reinforcing the 'design' part of design thinking and let designers lead the process to make things happen?

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