

DESIGN THINKING AS A MASTER IDEA

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Abstract

In this article, we show that Design Thinking can be understood as a master idea; a widespread idea that has achieved a particularly high status and legitimacy. It has in turn given legitimacy to other organizational recipes and standards. We also show that Design Thinking is a rationalized myth, driven by its generic character.

Keywords

Master idea, design thinking, rationalized myths, service design, design management

Zusammenfassung

In diesem Artikel zeigen wir, dass Design Thinking als Master-Idee verstanden werden kann; eine weit verbreitete Idee, die besonders hohen Stellenwert und Legitimität erlangt hat. Design Thinking hat wiederum anderen organisatorischen Rezepten und Standards Legitimität verliehen. Wir zeigen auch, dass Design Thinking ein rationalisierter Mythos ist, der von einer generischen Qualität getrieben wird.

Schlüsselbegriffe

Master-Idee, Design Thinking, rationalisierte Mythen, Service Design, Design Management

Sammendrag

I denne artikkelen viser vi at designtenkning kan forstås som en masteridé, en idé som har en særlig legitimitet og utbredelse. Den har igjen gitt legitimitet til flere andre organisatoriske oppskrifter og standarder. Vi viser også at designtenkningen er en rasjonalisert myte som særlig er drevet frem av dens generiske karakter.

Nøkkelord

Master idé, designtenkning, rasjonaliserte myter, servicedesign, designmanagement

Introduction

Modern organizations are continuously exposed to recipes and standards which are presented as solutions to current problems as well as future challenges. According to Czarniawska and Joerges (1996), the prerequisite for being ‘captured’ by new recipes is that these have existed for some time in people’s consciousness, as part of what they call a master idea in translocal space and time. A master idea is an idea that has achieved widespread acceptance and legitimacy (Czarniawska and Joerges 1996; Berglund and Werr 2000; Røvik and Pettersen 2014). One of the most popular recent organizational recipes is ‘Service Design’, the design of user-oriented innovation processes. We suggest that its popularity and prevalence is due to the fact that it can be understood as part of a very

expansive master idea, that of ‘Design Thinking’, which has spread with tremendous force, particularly since the mid-2000s (cf. Christensen and Ball 2019; Johansson-Sköldberg 2013). In this article, we will show that Design Thinking can be understood as a master idea and discuss why Design Thinking has achieved such widespread acceptance and legitimacy. There are few empirical studies of master ideas and no studies of the emergence and legitimation of such ideas. While Berglund and Werr (2000) have shown that Swedish consultants justify their activities with reference to master ideas, Røvik and Pettersen (2014) have documented the diversity of master ideas that legitimize reforms in Norwegian schools.

The purpose of this article is twofold: The first is to generate more detailed knowledge of the mechanisms that legitimize master ideas and discuss whether some mechanisms may be more important than others in explaining why a particular idea gains the status of master idea. The second is to take a closer (and critical) look at the literature on Design Thinking as such; a literature characterized by a strong belief in this particular master idea as an almost all-encompassing solution to current problems and future challenges, be they political, social or organizational. From our professional standpoint in the discipline of organizational theory, we regard Design Thinking as a rationalized myth that is spread, not because of its proven or documented effectiveness, but because of the *belief* in its effectiveness (cf. Meyer and Rowan 1977). As such, the article can be understood as a critical contribution to design research.

Master ideas

Master ideas are ideas that have achieved a particularly high degree of legitimacy across sectors and countries (Røvik and Pettersen, 2014). According to Czarniawska and Joerges (1996), they are meta-narratives of modernity and progress. They also claim that master ideas are taken for granted and can be used for all possible purposes. Furthermore, they claim that master ideas build bridges between passing fads and lasting institutions and that they seem to have their origins in stories about the past, which are translated into and thus understood in light of present concepts. They are projected into the future, often in contrast to those already in use. In other words, master ideas can be understood as a form of myth (Berglund and Werr 2000), which are translated into reforms and recipes. One and the same master idea can also be translated into and legitimize several reforms and recipes.

Røvik and Pettersen (2014) have outlined some key characteristics of master ideas. First, they are *widespread*, and will, within a given period, influence discussions across national borders and organizations. Second, they have *unclear origins*. This means that it is difficult to identify one specific source or originator because the discourses take place in several settings at the same time. Third, they are *self-justifying*. In a certain period, they are taken for granted as the right way to solve problems (cf. Meyer and Rowan, 1977). They are therefore difficult to argue against. Fourth, they trigger and *justify local reform initiatives*. This is because they define problems and solutions in one and the same ‘package’. Fifth, they are *elastic*, imprecise and complex. They are often philosophies rather than recipes and standards. Therefore, different versions can be developed in different places, sectors and organizations (cf. Røvik 2007).

Røvik and Pettersen (2014) have also launched some explanations for the prevalence of master ideas: they are legitimized by the fact that they are universal and appropriate for many different contexts and in all types of organizations. Furthermore, they are *scientifically justified* and presented as rational solutions that have their origin in research, science and logic. They are also *socially authorized*, because they are positively associated with persons, networks, and institutions with high authority and standing.

Method

Our claim that the popularity of Service Design can be understood as the result of widespread ideas that have existed for some time, requires a method that is based on a historical approach (cf. Suddaby and Greenwood 2009). Thus, we have been dependent on secondary sources. In this regard, we have relied on research literature, popular scientific texts, as well as other documents and websites. The research literature mainly consists of peer-reviewed articles, supplemented by a selection of relevant books, identified through the snowball method.

The starting point for finding relevant literature was knowledge achieved through a study on a related topic; the emergence and development of graphic designers' professional logic (cf. Moldenæs and Pettersen 2021), as well as an ongoing project on Service Design in the public sector. Initially we searched several databases based on the search term "Design Thinking", selected titles and texts that appeared relevant. We followed up by searching for people and authors referred to in the texts, as well as references in the respective texts' literature lists. This process was carried out several times, both individually and jointly, also based on other search terms such as "Peter Behrens", "Herbert Simon", "IDEO", "d.school", "wicked problems" etc., until these matches did not give any new information about the person, concept or topic.

The process can be illustrated by the example of the Stanford School of Design. Through one of the early searches, we found an article by Auernhammer and Roth (2021), which was about the origins and rise of the Stanford School of Design. Reading this frequently cited article, we became aware of the close relationship between the Stanford School and the design company IDEO, which we already knew about from popular scientific texts. Other professional communities we already knew about, such as the Lancaster research community in the UK. The same process was carried out for researchers who were frequently cited and who we perceived as key standard references. One example of such a reference is the article 'Design Thinking: Past, Present and Possible Futures', by Johansson-Sköldberg et al. (2013). The popular scientific literature we already knew. Early on, we also identified two of the most prominent (and first) journals in the field of design research: 'Design Issues' and 'Design Studies'. We read through the early contributions in these journals dealing with the history of Design Thinking, as well as review articles and special issues dealing with the status of Design Thinking as an idea and research field. In addition, we searched the websites of IDEO, Stanford d.school, Lancaster Imagination etc. The weakness of the snowball method is that it is difficult to know when to stop, and difficult to reproduce. However, we believe that we have identified the most relevant literature, partly because of our joint effort in the search for keywords and databases, and partly because the searches have been carried out in several rounds.

The data thus collected were organized by designing timelines and tables, noting key events, terms, actors, and definitions. Usually, historical data are divided into periods. However, because of our theory-driven analysis, we chose to divide the material into stories of origin. These were constructed based on standard references or authoritative texts; texts that have had a major influence on how the history and development of Design Thinking is understood. Our stories of origin are partly the result of time and partly of context. In terms of time, we have traced the origins of recent Design Thinking to the early 20th century and the German architect Peter Behrens, who in turn has influenced the more recent stories of origin. Although not all the actors in the more recent stories are equally explicit about this legacy, it is manifest in the DNA that characterizes their thinking in how the identified actors have described their ideas, as well as in how others have referred to them (cf. Moldenæs and Pettersen 2021).

Context has two dimensions. The most obvious is geography. The other is field. In terms of geography, we have identified two parallel discourses. One has taken place in the USA, the other in Europe. Regarding field, we have identified a research field and a practice field. In other words, in the geographical stories of origin there are sub-stories about the emergence of Design Thinking as a field of research and as a field of practice.

Design Thinking as a Master Idea

Stories of Origin

Typical of master ideas is that there are several stories of their origin. So, also when it comes to Design Thinking. We have found an *American* and a *European story*. Although they are different, in terms of time they are almost parallel. They do not, however, refer to each other. We have also found a practice story and a research story on each of the continents. In other words, it appears as if Design Thinking was triggered at about the same time on different continents and in different environments, without having any connection with each other – like mushrooms in the autumn, which spring up in several places at the same time (cf. Røvik 2007).

The American Story

The American practice story is closely linked to the design company Hovey-Kelley, which later became IDEO, and to their gurus and successes. The main characters in this story, are the founder David Kelley, and the current CEO and president Tim Brown. This is a story about how people from academia and the consulting industry have been woven together in an almost symbiotic relationship, creating ground-breaking innovations together with legendary entrepreneurs and companies such as Steve Jobs and Apple. An often-cited example is the computer mouse that IDEO developed for an Apple computer in 1980, with a mechanism that is nowadays used in almost all mechanical mice (cf. Brenner et al. 2016, Auernhammer and Roth 2021). Kelley is therefore credited as being one of the first to connect Design Thinking to business organizations (see Pranava Technologies 11 May 2020). According to Johansson-Sköldberg et al. (2013), it is precisely from an innovation perspective that the popularity of Design Thinking must be understood.

This story, however, starts with the emergence of what is now known as the Stanford School of Design. The originator is claimed to be the psychologist and engineer John E. Arnold. Arnold became a professor of engineering as well as business administration at Stanford University in 1957 (cf. von Thienen et al. 2018) and is referred to as a pioneer who has changed the perception of design, from solving technical challenges to developing innovations. His design philosophy is described as humanistic, strongly inspired by psychologists such as Joy Paul Guilford and Abraham Maslow, the philosopher Robert Hartman and the architect Buckminster Fuller (Auernhammer and Roth 2021). Although most designers credit the American architect Peter G. Rowe as being the originator of the term Design Thinking, due to his 1987 book with the same title, Arnold is claimed to be the first to use the term, as early as in 1959.

The strong relationship between the Stanford School and IDEO goes back to 1978 when IDEO was established. The same year, the entrepreneur David Kelley started teaching at Stanford. According to Auernhammer and Roth (2021), the founders as well as most of IDEO's professional staff were involved in the design program that Arnold originally initiated at Stanford. Therefore, IDEO's design practice is closely related to Stanford's design philosophy. It is also claimed that Kelley founded the Hasso Plattner Institute of Design at Stanford in 2005,¹ the d.school, with support from Germany's Hasso Plattner, the founder of the software company SAP.² At about the same time as the school was established, Design Thinking appeared in the literature on innovation management. According to Johansson-Sköldberg et al. (2013), it was stimulated by the work of IDEO's David Kelley and Tim Brown, as well as Brown's friend Roger Martin at the Rothman School of Management in Toronto (see also Rauth et al. 2015).

Another branch of the American practice story, albeit more rudimentary, and without any reference to the Stanford School, is the story of Lynn Shostack. She is credited for having introduced the concept of 'Service Design' in 1982, and in 1984 'the service blueprint' (see Shostack 1982, 1984). Thus, she is described as "the mother of Service Design" (Catalonotto 2018). The information about her and her other merits is scarce, beyond the two texts, other than that she was vice-president of an American bank and worked in marketing. Her contributions probably led to Design Thinking taking hold and spreading across the marketing profession.

In parallel to the practice story, we have the American research story. This story has three main characters or heroes, who are described as the origin of various approaches and concepts: Herbert Simon who launched the 'science of design' with the book 'The Sciences of the Artificial' (1969), Victor Papanek who introduced 'responsible design' with the book 'Design for the Real World' (1971), and Horst Rittel who is credited for the term 'wicked problems', also in the early 1970s (Buchanan 1992; Rittel and Webber 1973; von Thienen et al. 2018).

Simon argued for a systematic and formalized design methodology relevant to all design disciplines. He is often cited for stating that everyone who designs is a designer (is

¹ <https://www.ideo.com/people/david-kelley>, 27 Feb 2022.

² The school exists in several countries and the students learn to use design to develop their own creative potential, through five steps: Empathise, Define, Ideate, Prototype, and Test.

changing an existing situation into a preferred one). Simon's point was that the engineering profession is not the only one that engages in design, so do other professions, such as medicine and law. In several recent texts, however, this statement is used to legitimize non-professionals as designers. The book is otherwise described as "a seminal text for design theorists and researchers" (Huppatz 2015, 29), and the year of publication as "a great year" for design theorists (Catalanotto 2018).

With the slogan that design is for people not for profit, Papanek encouraged designers to attend to issues of social responsibility. Together with Buckminster Fuller, he was thus an early champion of design as an instrument for improving social and environmental conditions. Although Papanek's book has had a lasting international influence on designers and design research, it was in Europe that his thinking had the greatest influence on the education and training of designers (Vogel 2009). Among American designers, Papanek's ideas were initially rejected.

Finally, Rittel rejected early design methods, which he thought were too simple and rigid. Instead, he argued that designers often dealt with problems that were poorly formulated and confusing, so-called 'wicked problems' (Buchanan 1992). These days, the term is used not only as a description of the problems of designers, but also as a description of the problems of other professionals, not least the problems faced by the public sector, and the major societal challenges, such as climate, health, and poverty.

The European Story

The European story is, to a far greater extent than the American one, a story about the scientificization of the design field and therefore about the research pioneers and the demystification of the designers' creative process (cf. Catalanotto 2018). The oldest story in that regard is the English one, which is about the emergence of research into design methods. This story starts in the early 1960s, is discussed in several texts (see Cooper 2019, Margolin 2010), and appears to be far more homogeneous than the American (research) story. The heroes are Bruce Archer and John Chris Jones, both engineers and professors of design research at the Royal College of Art in London (cf. Margolin 2010). They organized the first conference on design methods in London in 1962.

Jones is credited for the book 'Design Methods: Seeds of Human Futures' (1970), which is claimed to have had a major influence on the emergence of design research, and on designers' perception of their role beyond the design of products. The message was that the designers' methods had to be articulated and made transparent. They should not appear as something that grew out of some 'black box' of inspiration (Margolin 2010). Archer, on the other hand, is particularly credited for what Cooper (2019) describes as an iconic project; the design of equipment for hospitals (the hospital bed project), which again laid the foundation for 'responsible' design. As such, Archer was an early defender of the Design Thinking approach currently in vogue and which Papanek wrote about in 1971. It is now "a growing argument in all fields of design" (Vogel 2009, 26). Responsible design did not, however, influence European design research to any great extent at that time. Instead, design for commercial purposes remained dominant, particularly from the late 1970s onwards into the 1980s and 1990s, when market forces dominated the political and economic environments (Cooper 2019).

There is also a European practice story. However, it is not like the American one, linked to the commercial sector, but to former Prime Minister Margaret Thatcher and a summit in the United Kingdom in 1982, on the relationship between product design and market success. In its wake, the authorities followed up with initiatives that supported design research and design projects.

The German Heritage

While the *concept* of Design Thinking is relatively new, this way of *thinking* is much older. It can be traced to the German architect Peter Behrens and his collaboration with AEG (Allgemeine Elektrizitäts-Gesellschaft) in the early 20th century (cf. Vogel 2009). This story is told and retold in many texts (see for example Meggs and Purvis 2016, Olins 1990, Vogel 2009), and can be understood as a third story of origin. It thus reinforces the impression of Design Thinking as a master idea. At the same time, this third story can be understood as the most authoritative one, and therefore as the ‘original’ story. The reason why, as we shall see, is that it ties together the American and the European story. Although the geography and field of the two stories are different, they have at their core a common German heritage.

AEG was the first industrial company to employ a designer to contribute to the development of products, and Behrens was responsible for the design of both factory premises, products, and graphic advertising material. He is referred to as one of the first industrial designers and as one of the first to attempt to synthesize technology and craftsmanship. He is also referred to as one of the first to try to unite mass production with artisanal qualities (Vogel 2009), and to integrate the human factor in design; nowadays often referred to as user-oriented design. However, Behrens is also referred to as the first to create logos and advertising material with a holistic design, so-called identity programs, which later became the standard for modern organizations. Furthermore, he is known for having launched a functionalist approach to design, where form is determined based on the object’s purpose and function.

Initially, the ideas of Behrens were continued by the architects Walter Gropius and Ludwig Mies van der Rohe. They institutionalized them in the now famous Bauhaus School, which Gropius established in the Weimar Republic in 1919. At this school, for the first time, the idea of finding a balance between art, science and mass production was translated into a curriculum for higher education (Vogel 2009). The school therefore set up a close collaboration between engineers, architects, and visual artists, but also emphasized mass production. The idea was that by means of modern production methods, most people should have access to high-quality products at low costs. The Bauhaus School was closed by the Nazis in 1933, and several of the teachers emigrated to the USA. According to Meggs and Purvis (2016), this transatlantic migration influenced American design after World War II and created a modern design movement that spanned disciplines such as architecture, product design and visual communication. Each Bauhaus teacher brought with them their own version of Behrens’ core argument, which they disseminated through well-known and well-established American educational institutions of architecture and design. At the same time, they tried to maintain the balance between art, science and mass production in their work and teaching.

In graphic design, their influence is found in the works of the famous designer Paul Rand, who designed iconic logos for a number of American companies. His logos were directly inspired by the work Behrens did at AEG. These days they represent the norm for logos worldwide (Moldenæs and Pettersen 2021). According to the British designer Wally Olins, the idea behind AEG's identity program has appeared again and again in the 20th century, although the program "went down with the commencement of the First World War" (Olins 1990, 49). When it comes to architecture, Mies van der Rohe's glass and steel architecture has influenced the design and construction of skyscrapers worldwide (Vogel 2009).

Also in England, the Bauhaus school influenced design education. In this regard, Cooper (2019) refers to North Staffordshire Polytechnics, which in 1973 introduced a new course in multidisciplinary design. The course reflected the principles of the Bauhaus School: "For me, this course illustrated that design had no disciplinary boundaries and that it was a problem-solving discipline" (Cooper 2019, 8). This generic feature of Design Thinking, which can be found in the American as well as the European story, can be understood as the core of recent Design Thinking. In other words, the generic feature seems to have originated with Behrens and the Bauhaus School.

Elastic

In the same way as the master idea 'Quality', Design Thinking can be understood as eclectic or elastic, which allows for different interpretations in different contexts (Røvik and Pettersen 2014). While Dunne (2018) describes Design Thinking as notoriously difficult to define, Brenner et al. (2016) and Auernhammer and Roth (2021) state that it remains highly unclear what Design Thinking is. Others, such as Kimbell (2009), simply describe the term as confusing. For example, while the definitions of Design Thinking are fairly similar, the idea is described as a distinct way of thinking (a mindset), as a process, and as a tool (Brenner et al. 2016).

When it comes to *mindset*, designers are claimed to have specific attitudes. These are often described in abstract terms, for example as approaching the world 'like a designer' (von Thienen et al. 2018; Kelley and Kelley 2013). Cross (1982) has however, described the designer's way of approaching problems as solution-oriented, their mode as constructive, and that they use their own 'codes' to translate abstract requirements into concrete objects. In other words, it is not entirely clear what their distinctive ways of thinking entails, beyond the designers' ability to think holistically, balance different considerations, and have an open approach to the problem (cf. Hassi and Laakso 2011). Still others, such as Brenner et al. (2016) claim that the core of Design Thinking is the principle that innovation is created by people for people, based on human needs.

However, typical of many descriptions of Design Thinking is that they combine analytical thinking with creative processes (Brenner et al. 2016; Shamiyeh 2010). Thus, Design Thinking differs from a more traditional approach to problem solving. Engholm and Salamon (2017) have denoted this combination as the romantic and the rational axis in the modern history of Design Thinking. While the rational axis represents scientific ideals (logic, rational planning, and order), the romantic one represents artistic ideals (creativity,

aesthetically refined intuition, and radical social change). Design Thinking is therefore considered as a ‘third way’, between rationality and emotions (Brown 2009).

At the same time, the descriptions of the designers’ way of thinking overlap with the descriptions of the *design process* itself, which is presented as fundamentally exploratory, e.g. as ‘open ended’, ‘open minded’ and ‘iterative’ (Brown 2009); open about what the problem is, a willingness to experiment, and repeating the process until the best solution is found. The process is thus described as a repetition of abstract concepts and concrete representations in order to understand the customer’s experiences and explore different understandings of the problem and its likely solution (Dunne 2018). The goal is to come up with new solutions, rather than choosing between existing ones. It is this process that requires a distinct way of thinking. Within certain subdisciplines, such as Service Design, the processes have been given their own labels, such as ‘the triple’ and ‘the double diamond’ (Pettersen et al. 2021). Such labels may also lead to ideas being disseminated more friction-free. They thus increase their ability to disseminate (cf. Røvik 1998).

As a *recipe*, Design Thinking can be understood as something that can be used to solve various problems (cf. Dunne 2018). This, too, is typical for master ideas; they generate tools and procedures that can guide the field of practice (Røvik and Pettersen 2014). In addition to the procedural aspects of Design Thinking, the closest we get to recipes are the various tools and methods used. Examples include storytelling, character profiles, storyboards, stakeholder maps, personas, service blueprints, service roadmaps, prototyping, travel maps, etc. (see also Stickdorn and Schneider 2011; Micheli et al. 2019). According to Dorst (2011), however, the increased demand for tools is seen as problematic for design researchers, as they do not want to contribute to oversimplifying design, but rather promote “multiple perspectives and rich pictures”.

The elasticity of master ideas means that different versions are developed in time and space (cf. Czarniawska and Joerges 1996). When it comes to Design Thinking, there has been a continuous expansion and redefinition of the idea’s meaning, as companies, consultants and universities have taken an interest in it (Brenner et al. 2016). Some therefore refer to Design Thinking as an umbrella term for various design approaches and subdisciplines. These can be found in various fields of practice and as subjects taught. While the subdiscipline ‘Service Design’ has made a significant impact as an innovative approach in the public sector, ‘design management’ and ‘innovation management’ have gained a foothold in the private sector (Dorst 2011; Auernhammer and Roth 2021). Stanford’s d.school, offers courses in ‘redesigning finance’, ‘forbidden design’, ‘civic design’, ‘the designer in society’, ‘designing machine learning’, and ‘transformative design’, while the School of Architecture and Design in Oslo (AHO) offers courses in ‘industrial design’, ‘interaction design’, ‘service design’ and ‘systems-oriented design’.

Reform Triggering

Design Thinking has triggered a number of change and reform programs, across nations and sectors. The reform-triggering power of master ideas is due to the fact that they are ‘packages’ that contain solutions as well as descriptions of contemporary problems (Røvik and Pettersen 2014). Organizations that are exposed to Design Thinking will therefore quickly come to the conclusion that they have an insufficient approach to

innovation. In Europe, Design Thinking has become particularly widespread in the public sector, in England, Belgium, Denmark as well as in Norway. In what follows, we present the Norwegian case and the prevalence of Service Design in attempts at organizational reforms.

Service Design was developed in the early 1990s (Cooper 2019, 11), but gained momentum from the mid-2000s (Fisk et al. 1993; Cooper 2019). According to the Norwegian designer Lavrans Løvlie, who sometimes is referred to as the world's first Service Designer,³ 'Service Design' was introduced in Norway in 2007, to promote service innovation. Subsequently, several reform programs have been triggered, driven forward by public funding. For example, through StimuLab, which is a collaboration between the Directorate of Digitalisation and Design and Architecture Norway (DOGA). Those who receive support from StimuLab must commit to "developing the projects through a design-driven process, and the funds we allocate should be used to purchase design and other expertise in the market". Furthermore, the Central Association of Municipalities (KS) has created a guide for the use of Service Design, so that Norwegian municipalities can use the 'triple diamond', which was originally developed by the British Design Council in 2004/2005.

The funding from Stimulab has led to the initiation of a number of design projects in Norwegian municipalities and other public sector institutions. In addition, there are collaborative projects between ministries, directorates, and county municipalities. The projects cover diverse areas and sectors such as health, urban development, tourism, climate, the justice sector (incl. the police), immigration, culture, the Tax Agency, roads, etc. Thematically, they are about the development of digital interaction platforms, user participation in construction projects, co-creation in policy making, digital treatment plans, development of new services in merged municipalities, patient flow, user-oriented supervision, digital interaction, etc.

Legitimation strategies

Boundless and All-encompassing

These days Design Thinking is presented as a problem-solving discipline, without disciplinary boundaries, or as Eisenbart et al. (2022,1) say, Design Thinking has "been stretching further and further beyond the realm of design". As early as in 1957, however, Fuller referred to design as "the rational master discipline of modern life" - a description that is even more relevant today. In other words, Design Thinking appears as both limitless and all-encompassing, which is expressed in several ways. First, in that Design Thinking no longer only encompasses design of products, but also of processes. Thus, it has become a way of solving all types of problems, regardless of sector and scope, not least 'wicked problems' such as poverty and climate change, as well as ensuring sustainable development (see Cooper 2019). Responsible design, which was once a possible alternative, has now become mandatory (Vogel 2009, 26). Design Thinking is claimed to stimulate innovation as well as transforming organizations and societies (cf. Kimbell 2009, 1).

³ <https://www.ledernytt.no/pwc-innovatoren-somemender-designfaget.6390847.html>, 9 March 2022.

Second, the limitlessness of Design Thinking is expressed by the fact that the role as designer is no longer reserved for professional designers but has become a process role that can be performed by almost anyone, or as Kimbell (2009, 2) says: “everyone is a designer”. Engholm and Salamon (2017, E. 1.16) have put it this way: “Current design theoretical debates seem to indicate that we are at another turning point where ‘everything is design’” and that “Designer has become a procedural role which may be undertaken by a broad range of professionals, in parallel with ‘project manager’ or ‘quality controller’”.

According to Kimbell (2009), the attention towards design methods in the 1960s and 1970s paved the way for what is described as a generalized Design Thinking in the 1980s and 1990s. The invitation to the first issue of the now well-reputed journal *Design Studies* reflects this generalized perspective “... one of the principal assumptions behind the launching of this new journal is that Design can be identified as a subject in its own right, independent of the various areas in which it is applied to practical effect” (Cross 1979, 17). Buchanan (1992) also advocated a generalized Design Thinking, by describing Design Thinking as a process approach that could solve problems in graphic design, industrial design, services and living and working conditions, as well as play and learning (cf. Johansson-Sköldberg et al. 2013).

Rationalized Myth

Considerable effort has also been made to ensure that Design Thinking appears scientifically documented. Several scientific articles have been published on the topic, and well-known designers have described their thinking, practices, and successes in popular scientific texts. Supported by Design Thinking’s strong relationship to research communities in both the USA and Europe, this might lead one to believe that the impact of a successful implementation of Design Thinking and the many recipes legitimized by this idea, are well documented. However, a deeper dig into the research field suggests that this is not the case.

While design researchers have primarily been concerned with design history, design methods and methodology, design management researchers have focused on the organizational conditions for implementing Design Thinking (Dunne 2018; Eisenbart et al. 2022; Wrigley et al. 2020). Nevertheless, Wrigley et al. (2020) emphasize that we still know little about how organizations can integrate design as a strategic approach, as well as integrate Design Thinking throughout the organization. They claim that this is because the focus has mainly been on Design Thinking as an intervention, “the process or action of designing outcome within an organization” (Wrigley et al. 2020, 125). They also claim that one has not been particularly successful in implementing the interventions. Design Thinking can simply be understood as a rationalized myth; its legitimacy is based on the belief that it is effective (cf. Meyer and Rowan 1977).

This belief is again based on anecdotes about the success of Design Thinking, which are referred to and disseminated. In other words, stories about the success of Design Thinking that spread, rather than its effects being documented (cf. Sahlin-Andersson 1996). For example, several of IDEO’s employees have published texts about the company’s Design Thinking model and practice (cf. Auernhammer and Roth 2021). However, it is Tim Brown and his bestseller ‘Change by Design’ from 2009, which is most often

referred to. In this book, the importance of Design Thinking is ‘documented’ by several examples of how well-known and successful technology companies have integrated designers and Design Thinking, such as Apple, IBM and SAP. Although these companies were successful long before they hired designers and integrated Design Thinking, the texts almost give the impression that Design Thinking is the source of their success.

The fact that Stanford, IDEO and Apple are all located in Silicon Valley, a global center for hi-tech and innovation, gives these stories extra credibility and authority. The strongly communicated connection between Design Thinking and innovation, another widely held idea, also reinforces its legitimacy. Design Thinking is thus legitimized through rational values beyond scientificization, such as progress and innovation. In addition, it is legitimized through another widespread idea; that of collaboration and participation, which in turn legitimizes the so-called ‘co-creation wave’, illustrated by popular terms such as ‘co-creation’, ‘co-design’ and ‘participatory design’ (cf. Cooper 2019). Another example is found in one of the book’s last chapters, where some of the future’s ‘wicked problems’ Design Thinking can help solving, are presented. Headings such as “Redesigning institutions”, “Redesigning democracy”, “Redesigning cities”, “Redesigning AI” (artificial intelligence) and “Redesigning life (and death)” and examples from IDEO's own projects, make Design Thinking appear as something that not only can solve current, but also future challenges. Otherwise, the headings are in themselves expressions and symbols of Design Thinking as a universal medicine.

In Europe, the research community around Professor Rachel Cooper and Imagination Lancaster, an applied research center at the well-respected Lancaster University in the UK, is one which particularly represents the scientificization of Design Thinking. Despite claiming to have published 40 books, created more than 100 design artifacts, and almost 160 publications (Beyond Imagination Lancaster, 3), none of them have focused on the implementation of the artifacts and the effects of implementing them.

In the same way as the well-reputed American design companies, the European ones have documented their practices and experiences in popular scientific texts, and as such disseminated the success stories of Design Thinking. One example is Ben Reason and Lavrans Løvlie, the founders of one of the world’s first Service Design companies, Live-work, established in England in 2001. In their book, ‘A Practical Guide to Optimizing the Customer Experience. Service Design for Business’ (Reason et al. 2016), they have referred to a number of successful companies that have made use of an integrated design; several of them the same as Brown has referred to. Otherwise, the chapters are filled with anonymous examples that illustrate how one has succeeded in the various phases in the Service Design process.

Context-based Authorization

IDEO has obviously been central in the process of authorizing Design Thinking as an all-encompassing, generic practice, first in the US and eventually internationally. This is partly due to the company’s collaboration with other successful American companies, and partly because of Kelley’s dual role, as a founder of the company as well as an employee at Stanford. The close collaboration with Stanford has “provided academic credentials” (Johansson-Sköldberg et al. 2013, 127). Put differently, the symbiosis between

academia and commercial actors, including successful companies that have made use of IDEOS' services, has legitimized Design Thinking. An impression that the idea is scientifically documented is created, at the same time as successful companies that are role models for others appear to have achieved their success by adopting Design Thinking.

IDEO and Kelley's many awards⁴ reinforces IDEO and its founders' guru status and the legitimacy of their Design Thinking. Their status and legitimacy are further strengthened by the mentioning of IDEO in a number of scientific texts (cf. Auernhammer and Roth 2021, Hassi and Laakso 2021, Johansson-Sköldberg et al. 2013), as well as by the fact that other design companies are portraying IDEO as their source of inspiration.

In Europe, it is primarily public authorities that have contributed to the status and prestige of Design Thinking, first in England via central politicians such as Thatcher and the establishment of public units that promote Design Thinking and allocate funding for design research and design projects (cf. Kimbell 2009). Thatcher is in fact described as "the main agent of change" (Gorb 1988, 1). However, Denmark was one of the first countries to establish an innovation lab, MindLab, which incorporated Design Thinking, largely inspired by IDEO (Carstensen and Bason 2012). Dunne (2018) claims that its dissemination in the public sector was led by prominent examples such as "Denmark's MindLab and Canada's MaRS" (Dunne 2018, 2). A similar development has taken place in Norway, as we have showed through the Norwegian example. In other words, the commercial sector and the public sector have separately contributed to authorizing Design Thinking.

Overall, this may explain the belief in Design Thinking as a generic solution that can be used in very different contexts. In parallel, Design Thinking has been incorporated into an increasing number of educational institutions, from primary schools to universities. While this is an expression of the legitimacy of Design Thinking, it further reinforces its legitimacy.

Conclusion

Design Thinking can be understood as a master idea, which in turn legitimates several other recipes and standards. In the USA as well as in Europe the idea has spawned a number of sub-disciplines and practical recipes. Its origin is found in Europe, although there are several stories of origin. The expansive dissemination of Design Thinking can be understood as a result of the idea being legitimized as a generic solution, that it appears as scientifically documented, and that it is authorized via symbioses and networks between reputable researchers, research communities, consulting as well as industrial companies and by public authorities. Nevertheless, we believe that Design Thinking is a rationalized myth primarily driven by its extremely generic nature. In contrast to several other master ideas, Design Thinking is perceived as offering universal solutions to institutional, administrative and organizational problems regardless of settings and circumstances. Furthermore, Design Thinking's authorization can be understood as contextually conditioned – in the sense that there are some differences between the US and Europe when it comes to institutional support and legitimization of Design Thinking. In the US

⁴ See <https://www.ideo.com/news/ideo-wins-fast-co-award> and <https://www.ideo.com/people/david-kelley>, 15 May 2022.

its main source of legitimacy is the commercial sector, in Europe the public sector. However, we still know little about what happens when the innovations developed through Design Thinking processes are implemented, be it in organizations or at other levels in society.

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