

Strategy and Design: Exploring the Emerging Significance of Design in Strategy Work

by Leanne Sobel

Thesis submitted in fulfilment of the requirements for
the degree of

Doctor of Philosophy in Management
Course code: C02048

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November 2024

Certificate of Original Authorship

I, Leanne Sobel declare that this thesis, is submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the UTS Business School at the University of Technology Sydney. This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis. This document has not been submitted for qualifications at any other academic institution. This research is supported by the Australian Government Research Training Program.

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Abstract

Over the past 20 years, design thinking has become a popular approach for managers to innovate and develop strategic capabilities within organisations. As managers have developed design thinking skills, designers' roles have expanded to support this trend. As a result, strategists have started to integrate design thinking methods, and designers have started to operate as strategic designers to co-construct strategy. While there has been an increased focus on design contributions to strategy in practice, the research exploring the role of design in strategy is underdeveloped. Consequently, there is a lack of conceptual clarity on the role of design and designers in strategy and how strategy evolves based on its intersection with design practices.

Following a grounded theory methodology, this PhD study examines the role of design in strategy as reflected in the narratives of design and strategy practitioners. The analysis draws from 50 interviews with 32 strategic designers and 18 strategists, and two focus groups with eight strategic design consultants. The thesis is organised into three research papers, each exploring different but interconnected aspects of the role of design in strategy. The first paper provides a contextual background of the discourses that define the landscape of strategy, design and design thinking studies, outlining synergies between practices, knowledge gaps and emerging opportunities for future research. The second paper presents five roles of design in strategy conceptualised as ecologies of translation. This paper explains how design appears in various applications as it is translated across contexts and between actors. The final paper examines how strategic design practices differ from traditional strategy approaches. I argue that strategic designers generate an emergent strategy practice conceptualised as *strategy-in-action*. The paper proposes that these new practices have the potential to expand current paradigms of practice in strategy to enable strategy to deal with complexities and human needs more readily.

This thesis contributes to the discourse investigating the opportunities and applications of design in strategy work. It clarifies the extended applications of design in reshaping organisations and what strategic design means. Further, it contributes to the strategy discourse by expanding the conceptions of strategy practice to incorporate transdisciplinary perspectives and presenting accounts of strategic designers in strategy

work. The document concludes with a discussion outlining key contributions the thesis seeks to make, outlining implications for future research and practitioner work.

Keywords: strategy, design, design thinking, strategic design

Acknowledgements

Academic colleagues and friends

I wish to thank Associate Professor Lars Groeger for supervising my master's thesis project back in 2012 and being the first to propose the idea of PhD studies to me. My learning with you gave me an entry into the world of research and academic life that I would not have had otherwise. You've been a constant support since then, and I am grateful for all the opportunities you have brought into my life.

Huge thanks to Associate Professor Jochen Schweitzer for giving me the courage to undertake this PhD project and agreeing to be my primary supervisor! Thank you for your endless encouragement and availability to work through the ins and outs of PhD life. It has been awesome to have undertaken this project with you. I am incredibly grateful for your support and mentorship towards developing a career in academia and beyond.

Dr Lindsay Asquith, thank you for keeping a close eye on me and caring for my well-being, for all of the fabulous projects we've worked on together over this time, and for providing me with ample time and space for fun while getting on with the business of my PhD. You created the opportunity for this PhD project; your encouragement and belief in me motivated me to pursue it, and I am so grateful for this.

Professor Natalia Nikolova, thank you for agreeing to be part of my PhD studies – first as my stage assessment examiner and then as a panel member. You've significantly contributed to shaping my analysis, arguments, and contributions. Thank you for your constant enthusiasm and belief in the value of my work and for providing me with many opportunities to share my work with others.

Dr Moira Scerri, thank you for your supervision and candour over the beginning of my studies. I enjoyed our Covid lockdown conversations, working together, and our ongoing discussions. Thank you for your constant support and interest in the work.

I thank Emeritus Professor Stewart Clegg for reviewing my developing thesis and guidance as my stage three assessor. I also thank Professor Cameron Tonkinwise for

reviewing my stage three assessment and for advice on shaping my thesis from a design theory perspective.

I also wish to thank my UTS PhD support crew, with a call out to Dr Terry Royce from the UTS Graduate Research School. Terry got me through the awful time of COVID-19 lockdowns as the host of regular writing lessons and sessions. Dr Maria Gardiner from ThinkWell, thank you for your very practical thesis production guidance and emotional support.

My extended UTS community, from the UTS Accounting Department—our chats in the kitchen have provided me with enormous support and the UTS Business School Futsal team. Thank you to my UTS Management Department peers and other colleagues from the UTS Business School, School of Design and TD School, Sydney University and beyond. Thank you, you have all played a part.

I wish to acknowledge Dr Emma Brodzinski from the PhD Life Raft, who has created a series of incredible events, networking opportunities and podcasts that have inspired me greatly. This kept me going when the going got tough and introduced me to an incredible network of PhD peers from across the globe, whom I now call friends. The legacy of your contributions to my life will live on beyond this PhD time. Thank you.

I wish to acknowledge Sam Hinderling for her editing services and for being with me in this last leg of the thesis work. Thank you.

I also want to thank the Heart Foundation for the scholarship awarded to me. This scholarship has given me the chance to undertake my PhD and continue to support my family throughout.

Friends and family

My friend network and best mates, your love and check-ins have been a lifeline in times of worry and doubt. Life happens in and through PhD work and having a solid support network has been everything. To my Sportif gym friends, thank you for the parties, giggles, and de-briefs while pushing weights and enjoying Saturday coffees. To Neil and Vicki, thank you for hosting me in your Avalon granny and creating space to be creative and productive, have fun, and make music.

I wish to acknowledge my family, who are a constant source of encouragement, support, good humour and strength. My grandparents, with whom I have had the privilege to grow up with and be guided by. My dearest late grandfather, Pa, John Douglas Rule, passed away mid-way through the production of this thesis. I have deep gratitude for his guidance and steady resolve. 'Dougie' was a grounding force of love, light and youth – a Peter Pan type who adorned me with a swathe of endlessly loving and smile-provoking nicknames. He provided consistent care and interest in my life's happenings and gave me strength and courage while reminding me to be grateful and keep the faith. I miss him dearly. To my 'Amar', Melda Rule, for your loving humour and endless nurturing, I know you would be proud. Pa Fitz–Raphael FitzGerald, thank you for your encouragement and hardy words that have kept me focused and on task. Your understanding, encouragement, and support have gone a long way in helping me get through this period and make the most of this opportunity. Thank you. Dearest Nanna, Joan FitzGerald, a warm hand to hold and nurturing love for the ages. Thank you for all the joy you have given me over my life. I love you.

To my parents, John and Glenys Rule, for believing I could do anything I put my mind to, providing me with many opportunities as a kid, and encouraging me to be creative and pursue my interests. I have flourished while undertaking PhD work from the comfort of the family farm and the quiet of the joinery office. Being at home with you has given me an essential recharge at the most critical parts of this process. Thank you for your love and support.

My parents-in-law, David and Pamela Sobel, thank you for helping Josh and me with our two boys over this period. I was able to complete this thesis thanks to your support. I will forever be grateful for your part in this process and for always being there for Josh, myself and the boys.

Uncle Ken and Auntie Roslyn FitzGerald thank you for your support over this period; you mean so much to me and my little family.

To my love, Josh. This has been challenging. When one takes on a PhD project, so does their significant other. Your support and encouragement have seeped into every word of this thesis. Thank you for your patience while I spent countless days away, writing late at night and listening to my concerns as I worked through curly PhD problems. Thank

you for building me back up when I was low and for your constant belief in me. I could not have done this without you.

To our boys, Jules and Kit, thank you for being patient with me and for your love, nourishing cuddles, motivational drawings, and good humour. In time, I hope that this undertaking may inspire you to pursue whatever your hearts desire.

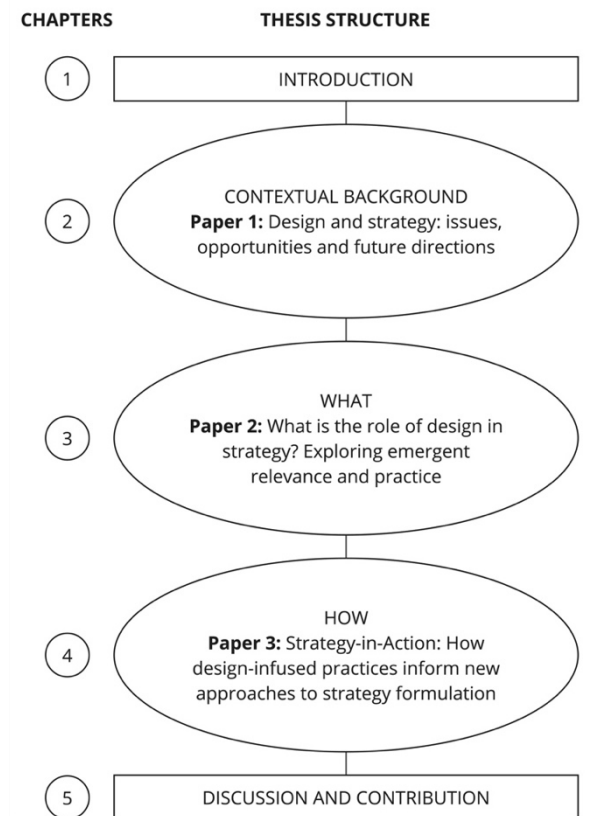
I dedicate this thesis to Josh, Jules and Kit.

Format of the Thesis

This thesis presents three papers addressing the overarching research questions: what is the role of design for strategy? It follows a sub-set of questions that help to explain how design is used in strategy and interrogates the contributions of strategists and strategic designers in this work. The thesis is arranged into chapters and commences with Chapter 1. Introduction, which provides an overview of the research, its motivation, methodology, findings, and contributions. Chapters 2, 3, and 4 present separate publishable journal papers, which have either been submitted for publication or are being prepared for submission. Chapter 5 presents the overarching discussion and contributions from the research and a conclusion summarising its results.

Figure 1

Structure of the Thesis



The thesis structure presents a conjoined narrative. In Chapter 2 (Paper 1), I provide the context for the study as a synthesis of the literature. In keeping with grounded theory (Charmaz, 2016), the literature review was assembled in the final stages of the research and represents a developed sensitisation to the research topic and related literature. I identify a slowly developing discourse on the synergies between design and strategy.

These streams are Design strategy and design management, Strategic design – designers co-determining strategy, Strategy and design thinking – design-led strategy, and Material things to aid strategy work – artefacts and visual communication. The literature review offers an overview of the key issues and synergies in design and strategy, and opportunities for future research, which sets the scene for the following studies outlined in Chapters 3 (Paper 2) and 4 (Paper 3). The second paper explores the question, ‘*What is the role of design in strategy?*’ The paper aims to identify how design is incorporated into strategy. I define five dynamic roles of design in strategy: experiencing, extending, enhancing, informative, and generative. Each role shows how strategic designers and strategy practitioners are engaged in strategy work differently, depending on translation mechanisms such as actions, actors, complex interactions and relations, organisational settings/contexts, circulation of ideas, and prototypes and templates. Together, these mechanisms form distinct ecologies of translation, forming *ecologies of design in strategy translation*. The consequence of these findings is that strategic designers and strategists use design in five distinct ways, each transforming strategy practice and generating strategic value for organisations.

Finally, Paper 3 focuses on the question, ‘*How is design practice used in strategy?*’ To answer this question, I put forward the concept of *strategy-in-action*, revealing the specific actions and principles through which design practices have been brought into strategy work. I first identify the polarities of practice between strategists and strategic designers to show that strategic designers practice strategy differently from traditional strategists. I then describe the actions and underpinning principles of strategic design practice that generate a different strategy experience, focusing more carefully on what is emerging in practice. As a result, I argue that *strategy-in-action* is a form of ‘emergent strategy’ practice, which contrasts traditional hypothesis-led and economically geared strategy approaches. This paper addresses key questions about how strategy practitioners and design practitioners are working in strategy and the impact this has on strategy. I conclude by bringing together each of the papers’ contributions to the

overarching questions of this doctoral research project, formulating its contributions and pointing towards future research opportunities.

Because each journal paper will be submitted as a co-authored work, I have used ‘we’ to identify authorship throughout the papers. Despite this, the contributions are primarily written by the doctoral candidate, me, and this should be interpreted as a technicality of the written form.

List of Papers Included

Title of paper	Lead Author	Co-authors		
Roles in paper production	PhD Candidate	Primary supervisor providing feedback	Co-supervisor providing feedback	Co-supervisor providing feedback
Paper 1: Design and strategy: issues, opportunities and future directions	Leanne Sobel	A/Prof Jochen Schweitzer	Dr Lindsay Asquith	Prof Natalia Nikolova
Publishing status:	Preparing for submission			
Paper 2: What is the role of design in strategy? Exploring emergent relevance and practice	Leanne Sobel	A/Prof Jochen Schweitzer	Dr Lindsay Asquith	Prof Natalia Nikolova
Publishing status	Submitted to JMS Special issue: <i>The Design–Strategy Interface. A Vantage Point for Management and Organizational Research</i> . Under review			
Paper 3: Strategy-in-Action: How design-infused practices inform new approaches to strategy formulation	Leanne Sobel	A/Prof Jochen Schweitzer	Dr Lindsay Asquith	Prof Natalia Nikolova
Publishing status	Preparing for submission			
The above-stated information is correct				
Acknowledgement of authorship	Production Note: Signature removed prior to publication.	Production Note: Signature removed prior to publication.	Production Note: Signature removed prior to publication.	Production Note: Signature removed prior to publication.
Signatures	Leanne Sobel	A/Prof Jochen Schweitzer	Dr Lindsay Asquith	Prof Natalia Nikolova

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Chapter 1. Introduction

Research Background

This thesis presents a study exploring the role of design in strategy. Over the past 20 years, designerly ways of thinking and working (Buchanan, 2001; Cross, 1982; Rylander, 2009) have become integrated into business through the development of ‘design thinking’ methods and tools (Brown & Katz, 2009; Liedtka & Ogilvie, 2011; Martin, 2009; Micheli et al., 2019). To be “designerly” is to contrast being “scientific” or “artistic” (Cross, 1982, p. 222). The expression has been used to make a distinction between the contributions of design as a legitimate, yet distinct method of enquiry and discipline of practice (Archer, 1979). The interest in design thinking has led to designers working in management spaces beyond traditional studio environments (Kimbell, 2011, 2012). Large consulting firms have acquired design studios, and organisations have set up internal design ‘champion’ teams and appointed Chief Design Officers to manage the expansion of design functions as strategic capabilities (Liedtka, 2020; Quint et al., 2022). Designers are now contributing to building design capabilities in support of design thinking agendas and working on new kinds of design applications or ‘placements’¹ realised by design, such as service design, user experience, and strategic design (Buchanan, 1992, 2001; Calabretta & Gemser, 2017; Muratovski, 2015). The interest in design has created new opportunities for designers and led to design and design thinking approaches being adopted in new contexts and settings (Johansson-Sköldberg et al., 2013; Pollach, 2022). Further, design thinking has been examined as an application of design in strategy; however, accounts of this type of application limit designers’ involvement in strategy work (e.g., Knight et al., 2020). This is an important issue because design thinking has been problematised as an incomplete view of what design might bring into management as it focuses on practitioners over the practices undertaken and the professionalisation of a field (Kimbell, 2011, 2012). Design thinking in strategy generates a new management style

¹ Buchanan (1992) uses the term ‘placements’ to describe the dynamic activities involved in design work. Placements are used to capture how designers and their clients address problems relating to the design solutions. The work involves a rich “pattern of invention that lies behind design thinking” and moves dynamically across types of design applications: “signs, things, actions, and thoughts” and definitions of the problem (p. 12).

of design practice undertaken by non-traditional designers (Magistretti et al., 2021; Verganti et al., 2021) and departs from design practice traditions (Cross, 2023; Johansson & Woodilla, 2009). Therefore, design thinking in strategy currently does not capture the experiences of what designers bring into strategy work and the potential opportunities brought forward by the development of strategic design practice (Calabretta & Gemser, 2017; Gallego et al., 2020).

An example of design thinking being used in this manner is the strategy formation at a digital bank (Knight et al., 2020). In this case study the ‘product managers’ were trained in design thinking and led a process that adopted ‘design-led’ approaches to strategy work – as an example of design thinking in strategy. In this account by Knight et al. (2020), design thinking was experienced in workshop settings where practitioners engaged with artefacts and in conversation about strategic issues and choices. The designers, however, were not deemed to play a pivotal role in the strategic work. In contrast, the example of the PLUGGY innovation project shows how designers can take the lead in strategic design used in strategy. In the project (Simeone & D’Ippolito, 2022), design approaches were used to facilitate future-oriented strategy considerations (‘strategic foresight’) and support the “learning processes in strategy articulation” (p. 54). Central to the PLUGGY case was the integration of designers into the strategy work following participatory design approaches whereby they shaped the strategy in co-creation with others. The process focused on the methods and artefacts designed and used to support participation and dialogue in the strategy process. The intention was to generate shared meaning and directions from engaging with artefacts. In this case, design practice was central to the process of artefact design and the experiences curated to encourage collaborative and participative practices through strategic work.

The use of design thinking or strategic design in strategy differs from classical accounts of strategy where it moves away from an overreliance on quantitative forecasts and market analysis (Carlopio, 2010) and where “classical strategizing is a two-part process... consisting of analysis of the attractiveness of a market, the basis of competition, and the firms’ competitiveness, and the construction of a plan” (Reeves et al., 2015, p. 36). This style of work focuses on producing the analysis, which informs choices. This differs from a process utilising design methodology that is focused on defining problems, considering humans and non-humans in the process (Buehring &

Bishop, 2020), and utilising design methods, such as cycles of divergent and convergent thinking, and a combination of tools like prototyping and user participation in designing with others (Simeone & D'Ippolito, 2022, p. 54).

In addition, the discourse exploring the applications of design thinking in management specifically, and the increased use of design in management settings, is fragmented. There is a lack of clarity about how effectively design translates into management and strategy as a practice (Carlgren, Elmquist, et al., 2016; Carlgren & BenMahmoud-Jouini, 2021; Kimbell, 2012; Pollach, 2022). Design thinking and designerly practices appear at odds in the discourses of management/strategy and design, without consensus about meaning (Liedtka, 2020) and legitimacy as an approach for managers (Micheli et al., 2018; Rylander, 2009).

Yet, both fields – strategy and design – are responsible for designing better futures and outcomes (Bansal et al., 2024; Cross, 2023; Franklin, 2001; Fry, 2009). Subsequently, there is a need to explain how new design professions like strategic design have developed, how these practices interact with traditional strategy practices, and how they may be shaping new ways of doing strategy work (Dorst & Watson, 2023; Lee, 2024).

Further, work is also underway in other institutional and industry settings to explore how design and designers are being integrated into management decision making. For example the use of design practices in law (Le Gall, 2021; Madison, 2005), public policy making (Brinkman et al., 2023; Kimbell et al., 2023; Lewis et al., 2020), and health care (Jones, 2013; Robert & Macdonald, 2017). Design is appearing elsewhere as an approach to better designing institutions (and the processes or systems within); it is therefore timely to examine the topic as it relates to strategy as part of this broader phenomenon.

This thesis pays particular attention to the various ways design is used in strategy and how design practices have been integrated into and affect strategy practice. I investigate the accounts of strategists and strategic designers to reveal how design appears in their work and the relationship between these practitioners. In doing so, I develop grounded theoretical insights on design applications in practice and discuss the implications for practitioners, researchers, and organisations.

This PhD study explores the following research questions:

What is the role of design in strategy?

1. What are the practices of strategic design, and how do they relate to traditional strategy practices?
2. What are the conditions for design practice in strategy practice – how does design come to be in strategy practice?
3. What is the value of adopting design in strategy? Are there distinct features brought in by design practice?
4. How do practitioners leverage design approaches in strategy contexts? Are there implications for practitioners as a result?

Research Methodology

This doctoral research project explores the pluralistic context between design, strategy, and related paradigms. This is represented by the developing practices of designers working on strategy as strategic designers (Calabretta & Gemser, 2017) and strategists developing design thinking approaches in strategy work (Knight et al., 2020). Further to this, we need to understand better where and how both practitioner types are co-developing approaches to strategy, identifying the synergies and overlap of practices in strategy work (Simeone, 2020; Stevens & Moultrie, 2011). In this instance, a social constructionist stance (Burr, 2015) allows me, as the lead researcher, to focus on what is occurring in the field and move beyond existing theoretical constructs towards understanding the applications of design in practice as it is experienced (Kimbell, 2012) – rather than getting caught up in specific definitions, paradigms, or methodological constructs such as design thinking (Johansson & Woodilla, 2009; Laursen & Haase, 2019; Verganti et al., 2021).

According to Birks and Mills (2015), a grounded theory study is appropriate when “little is known about the area of study, the generation of theory with explanatory power is a desired outcome, an inherent process is embedded in the research situation that is likely to be explicated by grounded theory methods” (p.17). For this research project, there is a distinct need to develop knowledge to explain how design is used in strategy work because current research is limited, as the use of design in forming strategy is a

relatively nascent development (Calabretta & Gemser, 2017; Magistretti et al., 2021; Micheli et al., 2019)

Therefore, I undertake a *grounded theory* (Glaser & Strauss, 1967) methodology to explore how and in what forms design is used in strategy. Grounded theory is ideal for this study because its methods examine the occurrence of different work approaches between practitioners, their “beliefs and meanings that underlie action, to examine rational as well as non-rational aspects of behaviour, and to demonstrate how logic and emotion combine to influence how individuals respond to events or handle problems through action and interaction” (Corbin & Strauss, 2015, p. 11).

Methodological congruence is achieved in this research design, as design in strategy work is emergent. Grounded theory is an appropriate methodology to discover what has not yet been understood from practice into research findings. Further, there is ontological alignment in that reality is viewed as constructed “through lived experiences and interactions with others” (Creswell & Poth, 2018, p. 35). I also emphasise my role as a researcher in generating meaning with participants as we discuss topics and engage socially on a topic (Crotty, 2020, p. 42). From this perspective, I see my approach to research as social constructionism (Ward et al., 2015). This informs my epistemology regarding how I see knowledge and my position in its construction.

The findings developed in this study are grounded in the data *generated by* research participants, with me as lead researcher, and as accounted for through their experiences in practice (Birks & Mills, 2015, p. 64). Only after the data revealed theoretical insights did I engage with extant theory to locate specific theories, which helped me elevate the insights emerging through grounded theory.

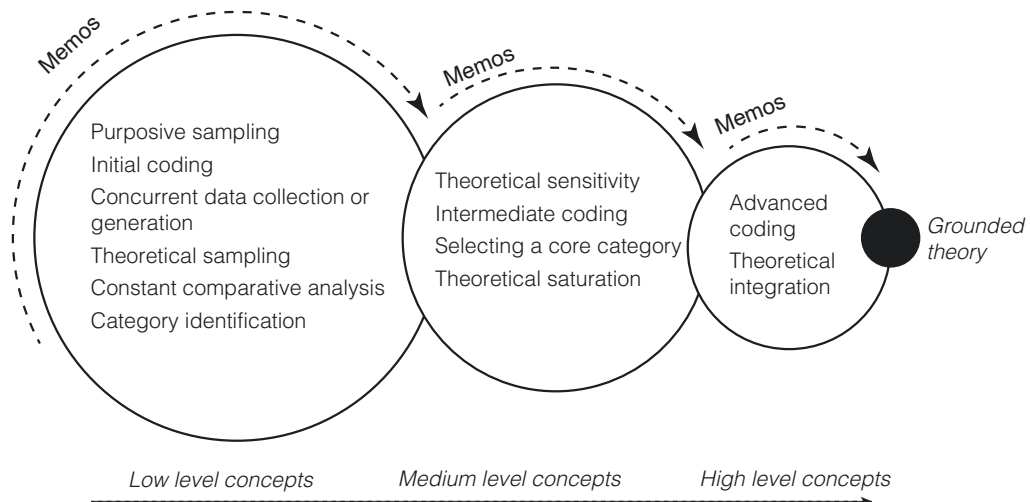
The findings of this thesis are based on the experiences of strategists and strategic designers, as shared through their reflections and narratives. I utilise the narratives of practice (Rouleau, 2010) approach to understand how practices are developed and evolve over time to understand the distinctions between practitioners’ working styles and attitudes about practice across contexts. A narrative of practice perspective elicits how practitioners’ knowledge develops and changes over time. This is important because it allows me to capture how practitioners’ experiences of using design in strategy developed and changed across different contexts and organisational settings

(Rouleau, 2010; Rouleau & Cloutier, 2022). This approach enabled me to undertake the study across sites and fields by concentrating the enquiry on what, how, and where design is used in strategy and to what end, thus supporting the pluralistic enquiry the research topic requires (Johansson-Sköldberg et al., 2013). By bringing a narrative perspective into the study, I capture the emerging nature of strategic design practices and acknowledge how each practitioner may have different experiences in this space, which has changed and may continue to do so.

Research Design

Figure 2

Grounded Theory Development, Low-level Concepts to High-level Concept Development and Theoretical Integration (adapted from Birks and Mills, 2022)



The Grounded Theory (GT) methodology (Birks & Mills, 2015; Charmaz, 2014; Corbin & Strauss, 2015) incorporates expert interviews, focus groups, and participants' drawings and documents that were shared through the interview process to support the articulation of practice and practice experiences (Rouleau, 2010). Extant theory was drawn upon in the advanced stages of theoretical development to enhance theoretical sensitivity, elevate the theoretical significance of the developing theory, and locate the developing research within existing and relevant discourse (Birks & Mills, 2022; Charmaz, 2006). The research design follows three phases of data generation, driven by the following methods (Figure 2). Figure 2 depicts the grounded theory process, which demonstrates the methods used to develop an integrated grounded theory. Memos are utilised in grounded theory as a vehicle for analysis and reflexivity (Birks & Mills,

2022). Memos are used in this study to contain and organise my written reflections about the research to support sensemaking of the data. It helped me establish theoretical sampling and determine specific lines of questioning within my interviews, critically reflect on my own biases and questions about the subject matter, share my developing work with my supervisory panel, and develop low-, medium- and high-level concepts (or themes) in forming a grounded theory.

Sample

The participants for this study were recruited based on their current roles in strategy or strategic design and with over 10 years of experience. I considered a practitioner's experience to be important in this study because both strategy and strategic design are professions that are largely honed through practice over time (Rouleau & Cloutier, 2022; Rylander Eklund et al., 2022). I took the position that greater levels of experience would afford richer insights about practice and the opportunity to understand how a practitioner develops their expertise over time, particularly if that involved designers learning strategy skills and strategists learning designer skills. The sample of strategists included strategy consultants, general managers, chief executives, analysts, and strategy scholars. The sample of strategic designers included strategic designers, product managers, design managers, design and innovation leads, chief design officers or heads of design. The sample consisted of participants from other countries, and in roles that spanned different types of strategy, such as organisational, product, business unit, etc. (see Appendix 2, Table 11 – Sample overview). As this study was focused on understanding the phenomenon of design in strategy more generally, the types of strategy were less important than seeking to understand the ways that practitioners were interacting with and utilising design in their work. We acknowledge that strategy occurs at different levels, from business strategy to product and service strategy. However, the key phenomenon and point of enquiry is how and why strategic designers and design are used in business and corporate strategy where they have not been utilised before and what impact or implications this entails. The specific geographic location of interviewees largely represents where design discourse in management is more progressive and where there are established practices and roles for designers to undertake this work at the intersection of design and strategy. This research design was centred around how practitioners developed their ways of working and integrated design

(or not) into strategy processes; therefore, it would not have been suitable to generate a sample in geographies where a level of practice experience is not yet developed. It was not expected that the specific geographic location or scope of strategy would have a material significance on the data collection. Still, if any specific differences arose through theoretical sampling and analysis, these variances could form part of the findings and discussion.

The initial data collection commenced with the purposive sampling of five interviewees, leveraging my professional network of strategic design strategists and strategists (Chun Tie et al., 2019, p. 3). Purposive sampling enabled the refinement of the sample focus, and the recruitment of follow-up participants to achieve a most extreme variation between practitioner types (Patton, 2002). Additional participants were recruited utilising the snowballing technique, whereby participants recommended other relevant participants from their network to participate in this study (Flick, 2009). Participants were chosen for their appropriateness for this study in keeping with theoretical sampling approaches. Following initial interviews, I conducted initial coding, and early concepts were formed. I then reviewed the participants in light of the insights emerging from the data analysis and identified issues to consider in recruiting the most appropriate participants (Birks & Mills, 2015). I noticed that strategists tended to reflect on design thinking tools and methods, which limited my understanding of how design was being applied through a design thinking lens (Cross, 2023; Laursen & Haase, 2019). In these accounts, design thinking was applied in very discreet ways and not embodied, as I understood from the interviews with strategic designers (Rylander, 2009; Rylander Eklund et al., 2022). Further, I found that strategic designers provided rich accounts of their experiences working with strategists in a descriptive manner that helped me understand how their work differed from strategists'. As a result of theoretical sampling, the final recruitment was balanced towards strategic designers as I could see that their interviews would provide deeper perspectives from both experiences (Birks & Mills, 2022). This resulted in 50 interviews in total, with 32 strategic designers and 18 strategists.

I also recruited two focus groups with representatives from strategic design firms to understand group dynamics, variation in experiences, and the evolution of design through practice (Corbin & Strauss, 2015; Patton, 2002). Participants represented

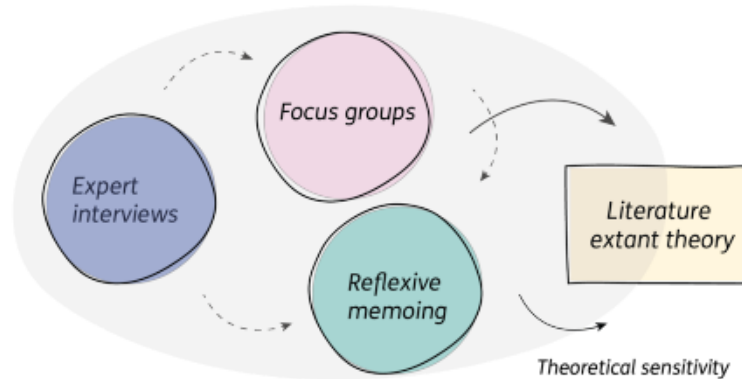
strategic design firms and had been practising strategic design /strategy with design for over 10 years. The participants' organisations are leaders in the field and possess a wealth of knowledge and experience about the developing practices of design in strategy. The combination of focus groups and interviews provided productive avenues of enquiry, which resulted in a rich data set. The sample and research design allowed me to understand the dynamics of design in strategy work and any issues or reflections about undertaking and developing the practices over time (Lambert & Loiselle, 2008).

Data Analysis and Data Generation

I coded five interviews in the initial coding phase and utilised *in vivo coding*, *concept coding*, *process coding*, and *metaphor coding* techniques (Saldaña, 2021). I adopted a series of approaches as I could see expressions of design being suitable for each coding format. I captured over 790 codes in the coding phase, capturing the process and experiences of engaging with design in strategy and relevant practices (Birks & Mills,

Figure 3

Methods of Data Generation for Grounded Theory Development – Constant Comparative Method (Charmaz, 2006)



2022; Saldaña, 2021). To advance the analysis and data generation into the medium-level concepts, I printed the code books and identified 82 thematic groupings, at which point the theoretical sensitivity on the subject was developing, and major themes were unearthed. The categories were developed as they reached saturation, and I could see that the same themes were emerging across the data sets in relation to the core research questions (Corbin & Strauss, 2015).

Paper 2 (Ch 3) and Paper 3 (Ch 4) represent constructions from the data that attend to different sub-research questions (see Appendix 1 for data structure summaries) and,

therefore, produce their own theoretical contributions through grounded theory development. The advanced coding and theoretical integration in each paper are discussed separately in the relevant paper methodology sections. Generally, I arrived at each theoretical contribution by utilising a constant comparison method (Figure 3), facilitated by coding data in Nvivo and developing a storyline and reflexive memos (Charmaz, 2006). I built analytic tables to abstract data to form concepts and compare data descriptions and meanings that defined the properties, relationships, and dimensions of each developing category (Birks & Mills, 2022; Cloutier & Ravasi, 2021).

In the advanced analysis stage, I reviewed relevant extant theories to elevate key concepts grounded in the data to provide rich descriptions and relevancy of the phenomena in relation to relevant discourse (Charmaz, 2006). I present a summary of data integration related to each paper's development, raising theoretical sensitivity by integrating extant theory (see: Appendix 1). I present the key analysis utilising the Gioia model of grounded theory data structures to visually demonstrate how the grounded theory was developed and centred on the data insights of participants (Gioia et al., 2013). Paper 1 presents the generative development of the literature over the course of this study as the analysis was developed for Papers 1 and 2, consistent with the constant comparative methods of grounded theory (Charmaz, 2006). This literature review was further developed after the concepts of Paper 1 and Paper 2 were abstracted, and further reading took place to locate the studies in the broader discourse (Birks & Mills, 2022). The literature review as paper 1, represents the development of theoretical sensitivity in the relevant literature for the general study topic and as it has developed for each specific paper contribution (Birks & Mills, 2022). The use of literature in this manner is consistent with contemporary grounded theorists, as it recognises that knowledge of the field helps the researcher develop more impactful research outcomes, situate the discussion in the relevant literature, and anchor the overall contributions (Charmaz, 2006; Dunne, 2011; McGhee et al., 2007). Papers 2 and 3 present the advanced coding stages, sub-categories abstracted from the data, and core categories capturing the contributions of each grounded theory developed. I also summarise how Papers 1, 2 and 3 guide the research questions (Table 1).

Table 1*Relationship of Papers to Research Questions*

<i>Sub questions</i>	Research question	Papers
Overarching question	What is the role of design in strategy?	all
1	What are the practices of strategic design, and how do they relate to traditional strategy practices?	1,2,3
2	What are the conditions for design practice in strategy practice – how does design come to be in strategy practice?	1, 2
3	What is the value of adopting design in strategy? Are there distinct features brought in by design practice?	1,2,3
4	How do practitioners leverage design approaches in strategy contexts? Are there implications for practitioners as a result?	1,2,3

Theoretical Sensitivity – Relevancy of Researcher’s Background

I bring extensive experience in the subject matter to this research topic. I have a design education in visual communication design and have worked in design management roles and in design education. Through this, I became interested in the design thinking discourse. I undertook a Master of Business to learn the language of business and begin to work more closely at the intersection of design and business. This led me to a career as a strategic designer, first in place-based consulting and then in strategy consulting, where I was explicitly tasked with integrating design practice into strategy. As the lead researcher on this thesis, I have intimate knowledge of the field and an extensive network of colleagues in design and strategy roles. I have over 10 years of experience working explicitly at the intersection of design and strategy. I have undertaken strategic design roles in various contexts as a consultant, researcher and coach. I have worked in Australia for my entire career and my experience reflects an Australian context that is more advanced in the applications of design. This is represented by leading design consultancies such as Meld Studios, TACSI, Second Road, and the Australian Taxation Office (Body, 2008), along with many design consulting firms locally. In Australia, there has been a movement to develop design thinking capabilities within organisations, which has led to opportunities for people like myself to experiment with design in new contexts, including strategy (e.g., Randhawa et al., 2021). The workplaces I have been

associated with have had an interest specifically in design, and I have played a role in experimentation and research in this capacity. As a result, I have sound knowledge of the subject matter and awareness of the complications related to its use in new institutional contexts across industries. This has not only contributed to my theoretical sensitivity and sensitisation of the subject matter but also given me the opportunity to follow lines of questioning focused on specific practice issues as I understand the language and modalities of practice. I suspected that the culturally situated context of my design practice may uniquely shape how design unfolds in management contexts, but I expected that design practices more generally are similar across cultural contexts. To address this, I kept myself open to sensing differences through my reflexive process of memoing to see what might arise. My experience has also enabled me to provide participants with an opportunity to share specific reflections of practice and experience working in various contexts in response to my questions.

Traditional discourse on grounded theory cautions against entering the field with high theoretical sensitivity (Glaser, 1978). However, it is acknowledged that it is impossible today to enter the field without prior knowledge due to ethics committee requirements and the need to justify the merits of research projects in advance (Birks & Mills, 2022; Charmaz, 2014). Further, when undertaking a grounded theory study, high levels of theoretical sensitivity support the development of rich research insights and theory development (Orland-Barak, 2002). However, to counter the risk of bias, it has been essential for me, as a researcher, to engage in high levels of reflexivity as I undertake my study (Birks & Mills, 2022; Corbin & Strauss, 2015) and utilise my PhD supervisors, who do not have the same background or experience, to sense check my analysis and sensitivity represented in my data analysis. I have written over 200 memos and created over 100 diagrams in Miro and on paper to aid my reflexivity throughout the study.

Research Findings and Contribution

Paper 1 provides a thematic analysis of the fragmented and sometimes confused discourse that explores the ideas of design in relation to strategy. I trace the background story of how design has progressed into management and then moved towards strategy. I then outline the various meanings that design holds in the design and strategy discourses and present the various proposals in the literature about how design might be

useful or synergistic to strategy work. Finally, I discuss four general domains where design is used in relation to strategy and the opportunities to develop further and align the design and strategy in these domains. These are design and design management, strategic design, design-led strategy, and designing of material things in strategy. This first paper contributes to the discourse by summarising the broad literature and discussion about design and strategy across the fields of strategy, design thinking, and design studies research. This pluralistic perspective reveals productive pathways for future research, for example, clarifying issues such as the limitations of design thinking as a paradigm of design practice in a management context, tracking the developing roles and contributions of strategic designers, and expanding the notion that strategists and managers are the primary actors formulating strategy. The paper concludes by outlining domains for research in response to the review, analysis, and theoretical discussions.

Paper 2 presents five dynamic roles of design in strategy, which represent distinct ecologies of translation. The five roles – experiencing, extending, enhancing, informative, and generative – are formed due to a mutually reinforcing set of conditions (Wedlin & Sahlin, 2017). These are driven by a dynamic combination of mechanisms, as defined by ecologies of translation, a framework that describes how ideas are translated in management (Wedlin & Sahlin, 2017). Ecologies of translation involve a combination of mechanisms, such as actions, actors and ‘carriers’ of design practice, complex interactions between actors, the editing of ideas and how they are adapted and circulated, and the prototypes and templates used to aid translation (Wedlin & Sahlin, 2017). This paper contributes to the discourse by identifying that strategic designers are agents in strategy practice and, therefore, provide an explanation of how strategic design practice unfolds and in what ways designers work when they are designing organisations and systems through strategy (Buchanan, 1990, 2001; Lee, 2024). Further, it expands on how we understand design thinking as a method and tool in strategy, and the ways that design thinking is shaping strategy practice in addition to its limitations as a design practice (Knight et al., 2020; Laursen & Haase, 2019; Verganti et al., 2021). Overall, the paper concludes that design practices are shaping and changing strategy practice (Wedlin & Sahlin, 2017) and that there are opportunities to develop practices for the betterment of strategy across the five roles. I also contribute to translation studies as an articulation of ecologies of translation at an actor and field level (for example, Nielsen et al., 2022). Further contributing to the translation literature, I show how

translation is multi-directional (Nielsen et al., 2022; Westney & Piekkari, 2020) and that both strategy and strategic design practitioners' own practices are developing and reforming strategy practice through experimentation and dynamic collaboration partnerships between the two.

Paper 3 reveals that strategic designers undertake strategy differently to traditional strategy practitioners by presenting polarities of practice and the differences between accounts of practice. I reveal that this is because strategic designers develop their skills through distinct design learning and knowledge development processes when becoming designers (Rylander, 2009; Rylander Eklund et al., 2022). The resulting grounded theory identifies the core concept of strategy-in-action to explain how design practices navigate strategy processes differently in more exploratory, open, reflective, and iterative ways. I present five actions: *considering the whole picture*, *experimenting to develop shared knowledge*, *elevating humanity*, *inspiring and considering future directions*, and *responding to what emerges*. I also introduce three underpinning principles of practice: *making things and designing experiences*, *generating shared meaning through dialogue*, and *understanding the context through enquiry*. Together, the actions and underpinning principles generate a design-led experience of strategy, distinct from hypothesis-led, highly analytical, and economically geared strategy processes. I further elevate the conception of strategy-in-action by returning to the extant theories in strategy and design (Krippendorff, 1989; Nelson & Stolterman, 2012; Rylander Eklund et al., 2022; Schön, 1994), identifying it as a form of emergent strategy practice (Chia & Holt, 2009; Mintzberg, 1979; Mintzberg & Waters, 1985). Strategy-in-action contributes to the discourse in the design literature by presenting a practice of strategic design (Dorst & Watson, 2023) and the virtues of designers' professional contributions as a style or sensibility of practice (Rylander Eklund et al., 2022; Tonkinwise, 2011). Further, strategy-in-action contributes to articulating a fourth order of design that places the focus of design on crafting systems and organisations, an extension of traditional product, visual, or architectural design (Buchanan, 1992, 2001; Lee, 2024). I contribute to the discourse in strategy as a demonstration of how other actors, such as strategic designers, are entering, contributing, and driving the strategy-making space (Belmondo & Sargis-Roussel, 2023; Seidl, Von Krogh, et al., 2019). While there have been propositions about emergent strategy as an alternative perspective in strategy (Chia & Holt, 2006; Mintzberg, 1979; Mintzberg & Waters,

1985), strategy-in-action is a practice that brings emergence into strategy-making work and challenges when strategy cycles may need to start and end through this approach as iterative sensing mechanisms for strategy.

Combined, the three papers contribute a grounded theory and conceptualisation of practice and theory, which explain the role of design in strategy as it is being experienced today. Thus, the studies and their contributions advance the current discourse across both the management and design fields to provide pluralistic avenues for future research and theoretical insights that can continue to be investigated and developed.

Study Limitations

The limitations of this study are centred on the scope and sites of research. In the first instance, this study has been designed to capture a breadth of experiences across contexts, industries, and engagement constructs. For example, the sample of participants includes consulting and in-house strategy teams and actors operating in different sectors and areas. Experiences of strategy relate to various actor types and across micro, meso, or macro phenomena (Jarzabkowski & Spee, 2009). Different industry types bring different sets of conditions, which also drive the kind of translation required and the adaptations of design use in strategy (Nielsen et al., 2022; Westney & Piekkari, 2020). For example, the public sector seeking social innovation focuses on general societal challenges that expand growth or economic benefit, including health and wellbeing and other social and environmental considerations (Amatullo et al., 2021; Auernhammer & Roth, 2022; Kimbell et al., 2023; Sobel & Groeger, 2013). The finance sector is experiencing digital disruption while seeking to develop stronger customer relationships and design their experiences to retain loyalty (Indriasari et al., 2022; Knight et al., 2020; Kosiba et al., 2018). Health care is dealing with considerable complexity as the issues of health care and healthcare innovation are systemic and involve many key stakeholders and sensitive aspects of the human experience (Chan, 2018; Jones, 2013; Robert & Macdonald, 2017). While the thesis captures the breadth of sites and context, I could not study the depth of any type of site or context. Future research will be able to build on this study's contributions to explore each of those elements more deeply.

This study captures the developing experiences of strategists and strategic designers over time through narratives of practice shared through interviews and focus groups. This has limited how deeply I report on the practices being used. Future studies can adopt methodologies used in strategy-as-practice studies (Jarzabkowski & Spee, 2009; Whittington, 1996) to build insights on design-as-practice (Kimbell, 2012; Rylander Eklund et al., 2022). Future studies may incorporate observational research methods to describe further the dynamics and interplay between strategic designers and strategists or each practitioner type across the various roles presented in Paper 2. Nonetheless, we know that practitioners will undertake their work in accordance with how their knowledge has developed in the field or through their education (Tonkinwise, 2011). This means that when strategists or strategic designers enter their place of practice, they have pre-established ideas and knowledge, which then govern how they will work (Cruikshank et al., 2015; Rylander, 2009). These pre-established ideas of practice are carried forward into their projects and are where researchers come to observe them.

Further, this broader contextualisation of practice, which accounts for macro phenomena such as environmental and economic shifts and developments, will further explain how designers have come into and developed institutional-appropriate practices of design (Heskett et al., 2017; Julier, 2006, 2013). More specific attention to these contextual macro forces and narratives will help to explain more about how designers and strategists ‘see’ their roles and how these broader contextual issues shape the meso and micro ways of being and working. For example, neoliberalism and the general move towards capital and profit models shape how design is called upon, as explored by Julier (2017). Such focused research will provide a critical review and perspectives about the general ethical and social responsibilities held by designers and the power and limitations of designers’ influence (Fry, 2009; Julier, 2013; Julier & Kimbell, 2019; Sweeting, 2018) – in light of their contributions towards organisational and business strategy processes. An understanding of this and strategists’ broader macro issues shaping practice alongside strategic designers’ work will help further explain new opportunities and developments not yet seen for the two fields of design and strategy as they become integrated in various ways. Further, it will become clearer how practices may be constrained or enabled due to these broader conditions.

Researchers investigating both strategic designers and strategy practitioners in observed settings will, therefore, benefit from adding methodologies to capture how the knowledge is developed prior to their practice to produce rich insights that can explain more deeply how a practice becomes effective and proficient (Rouleau & Cloutier, 2022). This is particularly so when ideas are being translated and adapted from one disciplinary base to another, as is the case with design in strategy (Wedlin & Sahlin, 2017). To build on the premise of pre-knowledge of practice, this study is further limited by how deeply strategic designers are learning to apply strategy practices – while I identify that strategists and strategic designers are co-constructing practices (Nielsen et al., 2022) and that translation is multi-directional (Wedlin & Sahlin, 2017; Westney & Piekkari, 2020), more investigation would enhance our understanding of how designers' roles are changing as they learn to work within strategy practice.

The use of extant theory is limited to the development of grounded theory, where theoretical contributions support the elevation of the meaning of the developing theory. Therefore, this study limits the use of theory for theoretical integration to the advanced stages of analysis (Birks & Mills, 2022) and within the discussion section of each paper to anchor the results in broader theoretical discussions (Charmaz, 2006). This has implications for how contributions might be utilised in the future. Therefore, future researchers are encouraged to expand upon the theories integrated into each study, and I note that each grounded theory provides ample space to continue to investigate how these practices are developing and, therefore, continue to compare to theories that help to explain this.

Chapter 2. Design and Strategy: Issues, Opportunities and Future Directions

Abstract

The emerging field of *strategic design* encourages reflection on the discourses shaping design and strategy to understand better how these fields develop and interact. Design thinking has gained mainstream acceptance in management, creating significant opportunities for designers to contribute and collaborate more closely with executives at the intersection of design, management, and strategy. However, the integration of design in strategy remains underexplored, and its impact on each field needs to be better understood. While design approaches, including strategic design, hold promise for management, scholarly work in this area has yet to fully explain how design is perceived and applied within a strategy context or what its ultimate purpose is. This is particularly important as organisations face increasingly complex challenges, such as mass digital disruption and global climate change, requiring rapid transformation. These challenges call for new approaches to strategy, encouraging organisations to adopt more dynamic thinking, innovate across a range of options, and envision future directions beyond current frameworks. This paper examines the fragmented discourse across strategy, management, and design, identifying opportunities for and challenges of incorporating design into strategy. We propose a framework for future research that aims to integrate these discourses more effectively, advancing our knowledge of the integration of strategy and design.

Keywords: Design, Design Thinking, Strategic Design, Strategy, Transdisciplinarity

Introduction

Strategy is about aligning knowledge to ‘imagine a future’ and the workforce’s capabilities to implement it (Clegg et al., 2022, p. 2). With this definition, there are two essential parts to consider when crafting relevant and actionable strategic directions. The first is to capture and activate knowledge around strategic issues and enablement, and the second is to align these to how an organisation and its people can enable change. However, traditional strategy scholarship tends to take externally focused approaches centred on analysis and competitive positioning; capabilities and internal

issues become secondary to what the market demands (see Mintzberg, 1990; Porter, 1996; Whittington, 2008). Such traditional approaches to strategy are widely emulated and exploited by consulting firms (Van Den Bosch et al., 2005). Specifically, they extrapolate past data and economic logic to guide future directions (Martin, 2009) and typically present a “formal analysis, such as environmental scanning, portfolio analysis, and industry and competitive analysis” (Hart, 1992, p. 337). These analyses are deductive, linear, and concerned with developing a pre-emptive plan (Celik, 2019; Hart, 1992), overlooking the dynamic and changing nature of organisations, their competitive environment, and the influence of people within it (Chia & Holt, 2023; Heskett et al., 2017; Martin, 2009).

The shortcomings of these traditional approaches have led to the emergence of economic approaches to strategy that focus on internal resources and capabilities, such as the resource-based view (Kor & Mahoney, 2004; Penrose, 1959; Wernerfelt, 1984) and dynamic capabilities (Eisenhardt & Martin, 2000; Teece, 2007, 2014). However, these approaches continue to favour an economic logic of strategic decision-making and overlook the significance and complexities of humans participating in developing and executing strategies (Burgelman et al., 2018; Jarzabkowski et al., 2007).

Gradually, scholars have focused on explaining the role of people, practices, and flows of activities in formulating effective strategies (Jarzabkowski & Spee, 2009; Vaara & Whittington, 2012; Whittington, 1996). Such micro-perspectives see actors as integral to successful strategy formulation as they craft and implement strategy in relation to other actors. Other perspectives have sought to link practices and processes to explain the micro and macro connections between what people do and how these issues connect to organisations’ broader activities in shaping futures (Chia & MacKay, 2007; MacKay et al., 2021). At the heart of each perspective lies a position on how best to undertake strategy work to inform future directions that will best serve the organisation and its ambitions. Yet, the intention for strategy remains the same: to define potential actions to achieve a desired state sometime in the future (Clegg et al., 2022, p. 2).

But this task is becoming increasingly complex and fluid. Contemporary discourse on strategy is grappling with the rate of changes disrupting industries and strategy makers’ roles (Camillus, 2016). Global climate change and other unanticipated globe-shifting events, such as those experienced during the COVID-19 global pandemic, have

highlighted the need for organisations to reconsider their objects of analysis and processes for strategy (Bansal et al., 2024; Grewatsch et al., 2023; Jarzabkowski et al., 2019). Digital disruptions continue to upend business practice conventions, so strategy cycles and processes must change to adapt (Duckworth et al., 2007; Pereira et al., 2022; Sullivan & Fosso Wamba, 2024). Strategists are dealing with wicked problems that challenge the conventional rationalistic approaches used in strategy today (McMillan & Overall, 2016). Given this context, the scope of strategic analysis may have to be expanded to consider broader stakeholder groups, industry-wide change, and the environment (Bansal et al., 2024).

Against this backdrop, we present how design ideas resonate in strategy and how strategy and design discourses overlap (Pollach, 2022; Simeone, 2020). Over the past 20 years, design has been recognised as a practice that brings more innovative and exploratory responses into strategy (Carlopio, 2010; Magistretti et al., 2021). The trend towards an increasing interest in design for management more broadly follows global developments driven by neoliberalism, whereby organisations seek capital and growth in free and entrepreneurial markets by differentiating or bundling products and services and building distinctive brands that customers desire. This should allow organisations to more effectively compete in local and global markets. It is within this context that design firms and industry organisations like the UK Design Council have also sought to respond to the expanded opportunities that have developed as extended value of design (de Mozota, 2006; Julier & Hodson, 2021). What is most appealing about designers applying their skills in these contexts is not only the ability for designers to produce well-designed material things (Krippendorff, 1989) but also that designers follow an array of practices that can more comfortably navigate complexities and ‘wicked problems’ (Brown, 2005; Buchanan, 1992). Designers provide alternative approaches that move beyond economic logic and rational approaches towards problem framing and new solutions (Heskett et al., 2017; Nelson & Stolterman, 2012; Stigliani & Ravasi, 2018).

The rise of design thinking in management has also brought with it nascent fields of practices that move design ever closer to strategy, including the development of strategic design practice, which, combined with design thinking methodologies, is

expanding traditions in strategy practice (Calabretta & Gemser, 2017; Knight et al., 2020; R. Martin, 2021; Micheli et al., 2018).

Designers are finding their way into more influential and strategic roles as their significance has been elevated within organisations (Micheli et al., 2018; Muratovski, 2015), creating more significant opportunities to influence and shape strategy (Buchanan, 2001; Chung & Kim, 2017; Golsby-Smith, 2007; Lam, 2017; Micheli et al., 2018). As a result, strategic design has emerged as a new type of design practice that connects designed forms to broader organisational issues (Hill, 2012; Manzini & Vezzoli, 2003), progressing the ‘placement’ of design towards the design of systems and organisations (Buchanan, 1990, 2015). As a result, strategic design has become an extended form of design that progresses design practices from a focus on traditional practices, such as graphic design, architecture, and product design, to that of strategy (Calabretta & Gemser, 2017; Lee, 2024).

The emergence of strategic design brings new opportunities and practices for designers to co-develop and contribute to strategy work (Calabretta et al., 2016; Jevnaker, 2000; Simeone, 2020; Simeone & D’Ippolito, 2022). At the same time, strategists may also bring design thinking methods or tools into strategy work, which reflects the dissemination of design thinking as a trend in management research and practice (Knight et al., 2020; Liedtka, 2020; Liedtka & Kaplan, 2019; Pollach, 2022). Since both strategic designers and strategists implement design thinking, we ask the following questions: Who is best placed to do design, and how do design practices lead to different experiences and outcomes in strategy (Kimbell, 2011, 2012)? Given that designers comfortably deal with wicked problems (Buchanan, 1992) and that rational approaches require more reliable and stable conditions (Schön, 1994), we query if, in the face of contemporary business challenges, design may bring more to strategy than has been appreciated in the past. As such, we see it as timely to address the developing intersection of design and strategy and suggest more substantial linkages between the two discourses to examine the potential placement of design in future conceptions of strategy work.

Following the development and integration of the professional fields of design and strategy (Johansson & Woodilla, 2009; Micheli et al., 2019), we aim to map the development of the discourses across theoretical domains of design, management, design thinking and strategy, which explore how design ideas are, or could be, applied in strategy. In doing so, we respond to the call for researchers conducting work at the intersection of design and management (including strategy) to take a pluralistic stance, capturing the different perspectives across discourses (Johansson-Sköldberg et al., 2013, p. 132). Our approach maps *how* design has become a popular approach in management; it shows how design has become connected to the strategy practice and discourse and outlines the future directions of practice and research by consolidating and integrating perspectives across the research landscape. Drawing on a social constructionist stance, we centre our inquiry on the following questions: What is the relationship of design and designers to strategy as accounted for in the literature to date? What is design bringing to strategy? How might future researchers and practitioners consider developing this integrated approach to strategy? Overall, we seek to understand the role of design and designers in strategy more comprehensively.

We provide the following exploratory literature review to contextualise the growing overlap of design and strategy (Dunne, 2011, p. 121). As we identify connections and overlays, we draw on an inductive and abductive approach to understand the research field.

We contribute to research converging the strategy and design domains by clarifying how this convergence is discussed across scholarly fields and finding points of synergy that may so far be underexplored. Further, we describe potential avenues for scholars and practitioners to continue developing meaningful and integrated insights at the intersection of design and strategy.

Methodology

This paper presents a pluralistic review of the design, strategy, and design thinking literature to understand issues, opportunities, and future directions for research (Johansson-Sköldberg et al., 2013). This work draws from and expands on significant literature reviews and conceptual studies from across the fields (notably, Jarzabkowski & Spee, 2009; Johansson-Sköldberg et al., 2013; Magistretti et al., 2021; Micheli et al.,

2019; Verganti et al., 2021) to establish a current view of the theoretical landscape, intersecting and exploring strategic design and strategy-design-related discourse.

In presenting the literature, we expand on research undertaken within a broader grounded theory (GT) study that has explored the role of design in strategy. The use of GT in literature reviews is contentious, with classic grounded theorists (Glaser, 1978; Glaser & Strauss, 1967) raising concerns that exposure to the literature early in studies risks the researcher pushing existing ideas and theories into the work. However, more contemporary perspectives on GT recognise that early exposure to literature is valuable and necessary in terms of the practicalities associated with research (Birks & Mills, 2015, 2022; Charmaz, 2014). Early exposure to the literature also ensured that our research could be substantiated in the field, fulfilling requirements for ethical research practices and establishing the foundation for data collection and analysis. Engaging with the literature also established our awareness of the gaps and opportunities for the research (Dunne, 2011; Giles et al., 2013).

The GT approach utilises constant comparative analysis in the advanced coding stages, where literature can be engaged to explain the developing theory and locate its relevance in existing bodies of knowledge (Charmaz, 2006, p. 165). The theoretical sensitivity established through this process allowed us to connect and further substantiate the developing theory regarding the specific research questions and, more broadly, with other literature that could help explain the phenomena (Dunne, 2011; Giles et al., 2013). Through these key phases of work in GT, we were exposed to and covered research in the domain pursued.

Despite its usefulness, we remained reflexive about the knowledge that we had sensitised. Hence, this paper presents a review of the research relating to design in strategy to *contextualise* the study and identify gaps and opportunities within the discourse that are either underexplored or require further clarification (Dunne, 2011).

We approached the research topic from a social constructionist stance (Burr, 2015). It is also important to note that the lead researcher had extensive experience working across strategic design, strategy, and design. Their previous work related to the core theoretical domains of strategy, design, and design thinking. Therefore, their knowledge and previous work were used and integrated as necessary into this review of the literature.

This established theoretical sensitivity towards the subject and a broad understanding of the literature have informed choices regarding the analysis of ‘significant works’ suitable for developing GT (Charmaz, 2006, p. 166).

Given the pluralistic nature of this study across disciplinary domains, the literature review concentrates on capturing the scope of the various discourses on how design may be used or understood in strategy. Further, as design placement in strategy is an emerging field, the management literature rarely references design, particularly in strategy discourses. Therefore, we sought to understand how strategy discourses have attended to design, such as how design has been used as a strategic capability (Jevnaker, 2000; Micheli et al., 2018) or how it has been used to create visual aids in strategy work (Comi & Whyte, 2018; V. Seidel, 2000).

We used electronic databases, such as ProQuest, EBSCO, Wiley, and Google Scholar, to search for literature using search terms such as ‘design strategy’, ‘design-led strategy’, ‘design thinking’, ‘design’ AND ‘strategy design’, and ‘strategic capability’. The accumulation of relevant research snowballed as we progressed the review and followed the referenced citations and other discourses stemming from the gathered literature (Badampudi et al., 2015; Wohlin, 2014). The literature search included journal articles, books, and some grey literature. Journal articles formed the basis for our broad analysis and discussion; however, there were a few pivotal books that provided rich contributions to the discourse on design as it relates to strategy, such as Schön’s (1994) *Reflective Practitioner*, Chia and Holt’s (2009) *Strategy Without Design* and Carlopio’s (2010) *Strategy by Design*. Additionally, we used grey literature to help explain how the progression of design in strategy has stepped forward in the industry. These included articles documenting the rise of Chief Design Officers and experimentation with design in strategy and as a strategic capability (Dalrymple et al., 2020; Sheppard et al., 2018).

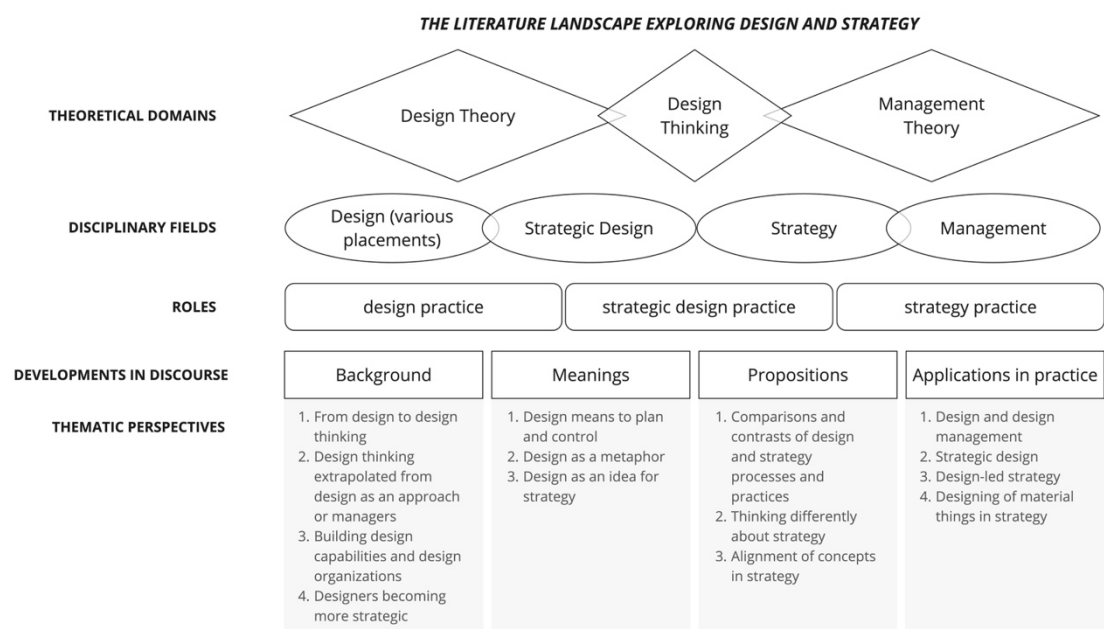
As is typical of GT studies, much literature was reviewed while developing theoretical sensitivity and advanced coding, which incorporated broad reading across design, strategy, design thinking, and management (Birks & Mills, 2022). Overall, we reviewed about 150 articles from leading journals in design and management studies, such as the *Journal of Project Innovation Management*, *Long Range Planning*, *Design Studies*, *Journal Management Studies*, *Organisational Studies*, *European Management Review*, *Organisation Science*, *California Management Review*, and *Journal of Design Business*

and Society. Other industry and open-source journals were also reviewed as they provided fruitful studies of how design, strategy, and business intersect, such as *She Ji* and the *DMI Review*.

Our review and analysis of the literature were not systematic but meant to provide an articulation of the key themes and issues being discussed in the literature that may influence or direct the progression and future discourse exploring design and strategy. For example, we explored the role of design thinking discourse because it has been a popular paradigm capturing the changing roles of designers and how design practice has emerged in management discourse (Verganti et al., 2021). Therefore, we can then see how these strands of discourse contribute to research on how design can be useful to strategy as a specific conceptualisation of design practice (Knight et al., 2020). As outlined in Figure 4, we articulate the themes as ‘developments in the discourse’ by analysing the key literature, reflecting on the key framing for each paper to organise the progression of discourse over time. The themes became organising principles for how to understand the main concerns of the literature and key issues explored in relation to the topic of design, design thinking in management and strategy practice, as the interest in this intersect increased and transcended discourse across theoretical domains of design theory, design thinking and management theory studies (Micheli et al., 2019).

Figure 4

Developments of Discourse Articulated From Across Theoretical Domains and Disciplinary Fields



In what follows, we present a broad view of the literature as a landscape of conversations about how design has become relevant to strategy. The following summary table (Table 2) provides an overview of the discourse landscape and the central themes we discuss at length. We reveal gaps in the existing strands of literature to propose future opportunities for research investigating the nature of design practices in strategy work.

Table 2

The Literature Landscape Exploring Design and Strategy

<i>Scholarly discourse across the disciplines of Design Studies, Design Thinking, and Strategy in the disciplinary fields of Design, Strategic Design, Strategy, and Management</i>				
Progression	<i>Background</i>	<i>Meanings</i>	<i>Propositions</i>	<i>Applications in practice</i>
	Origins of design practice moving towards strategy	How design is understood in strategy discourse	How design is positioned as being useful or synergistic with strategy work	How design is finding its way into strategy work, intersections and overlaps
Key perspectives	1. From <i>design</i> to <i>design thinking</i>, concepts emerging from design practice (Auernhammer & Roth, 2021; Berger, 2011; Brown, 2005; Buchanan, 1990, 1992, 2001; T. Kelley, 2013; Lee, 2024) 2. Design thinking extrapolated from design as an approach for managers (Kimbell, 2011, 2012; Liedtka, 2000; Liedtka & Ogilvie, 2011; Martin, 2009, 2010) 3. Building design capabilities and design organizations (M. Beverland & Farrelly, 2007; Carlgren et al., 2014; Carlgren, Elmquist, et al., 2016; Liedtka, 2020) 4. Designers becoming more strategic (Strategic Design) (Calabretta & Gemser, 2017; Chung & Kim, 2017; Manzini & Vezzoli, 2003)	1. Design means to plan and control; top-down, hierarchical approach to strategy (Chia & Holt, 2009; Mintzberg, 1979, 1990) 2. Design as a metaphor for strategy; design is synergistic with strategy but no established connection in practice (Liedtka, 2000) 3. Design as an idea in strategy implied in the discourse but not understood as design explicitly (Carlopio, 2010; Magistretti et al., 2021).	1. Comparisons and contrasts of design processes and practices with strategy (Carlopio, 2010; Chhatpar, 2007; 2. Thinking differently about strategy 3. Alignment of concepts in strategy (Fixson & Rao, 2014; Simeone, 2020; Stevens & Moultrie, 2011)	1. Design strategy and design management (Liedtka & Kaplan, 2019; Orlikowski, 2004) 2. Strategic design (Calabretta et al., 2016; Calabretta & Gemser, 2017; Gallego et al., 2020; Hill, 2012; Manzini & Vezzoli, 2003) 3. Design-led strategy (Harre et al., 2021; Knight et al., 2020; Liedtka & Kaplan, 2019; Simeone & D'Ippolito, 2022) Designing material things in strategy (Buchanan, 1985; Cummings & Angwin, 2011; Kaplan, 2011; Paroutis & Knight, 2019; Stigliani & Ravasi, 2018; Whittington et al., 2006)
Key insights	Ideas of design are being translated across the discourse and in practice, generating new opportunities for managers and designers to work in designery ways	Design has been used to describe outmoded approaches to strategy as it implies to 'plan and control' – as a result it is proposed that strategy is better 'without design' but that this idea overlooks what it means to design(<i>ing</i>).	Design has been proposed to bring forward greater opportunities for strategy to be innovative, adaptive, future-focused, and inclusive to aid greater product-market fit, value-creation, and support organisational transformation.	Design is being used to aid strategy in a variety of ways. Despite the propositions for design being used in strategy making, there are scant accounts of how design is being used in strategy and what effect it is having on strategy work.

Key issues	Translating design into management is not easy. Managers and designers require supportive environments to realise design's value in organisations. The popularisation of 'design thinking' has created greater opportunities for design, however, design thinking does not require designers, creating tensions about who is legitimately 'doing design' and if design thinking can retain its substance and potential. Despite this, design has become strategic for organisations.	The meaning of design in the strategy literature has a chequered history. While contemporary discourse about design thinking in strategy clearly distinguishes between the acts of designing and more rational, analytic approaches to strategy, the earlier meaning of design as to plan and control has been carried forward into contemporary contributions. Thus contradictory meanings of design are proliferating.	The disciplinary practices of design have been compared to strategy concepts and processes to show how design can enhance strategy work, but existing practice and discourse have not yet fully captured its potential. Proponents point out that contemporary strategy contends with ambiguity and complexity, which calls for a different approach. Traditional strategy approaches tend to sustain current paradigms, whereas design offers a new perspective for strategy.	In organisations, design enhances strategic capabilities and value-creation efforts in several ways. However, the various applications do not align with strategy formulation. Strategic design and design-led strategy imply that design is being used to inform the development of strategy, but the accounts of their application are limited and the relationship between strategic designers and strategists is not clear.
Key contributions from discourse	The discourse is fragmented as designers become marginalised from the design thinking discourse and its merits for management. The discourse on design thinking in the field of management has matured; it has become an established scholarly field where scholars study how managers adopt design thinking in their environments. As a result, designers' extended placements in management are re-orienting back into design discourse, despite early proponents of design thinking emerging also from design (alongside those writing on it in management discourse).	When strategy is conceived in the minds of strategists and managers and then implemented, a strategy has been designed. The meaning of design has been attributed to the idea that a design is complete once it has been developed and can then be facilitated by others without prior consultation. If we take design to mean 'to create something new like a designer', then strategy becomes something far less rigid, more creative, inclusive, visionary, and adaptable. The meaning of design used in strategy discourse is unfortunate and misleading in light of what it means to design.	There are far more synergies between design and strategy than management/strategy practitioners and scholars have accounted for. Very little research links the two together, despite various attempts to align the disciplinary fields.	Design has been used to inform the development of strategy. Strategic designers co-construct strategy with strategists and other stakeholders. The discourse on strategists adopting design thinking suggests that strategists are the key makers of strategy. Designers are learning how to apply their design skills in a strategic and management context and what it means to be designing systems, organisations, and strategic visions. Strategists are learning about how to extend their approaches to strategy to incorporate 'design thinking data' and enhance strategy making through a variety of material interactions.
Key gaps	• Articulation of design thinking expertise (how managers become experts in design thinking) • Articulation of how designers work in more strategic roles. How do they apply design to organisations, systems, and experiences? • A full view of the discourse across design, strategy, management, and design thinking that accounts for the evolution of practices	• Comprehension about what design practices might mean in strategy work • Designers' contributions not attributed with the discourse on design thinking in management • View of designing as a legitimate practice in strategy beyond specific applications of design (such as visualisation)	• Clarity about the involvement of design practitioners in strategy that adopts a design approach • Explanation about how strategists could alter their practices and what perspectives and approaches would need to change to realize a design-led or infused approach to strategy • Clarity between design thinking discourse and overlays between design practices	• Understanding how strategic designers and strategists work in relation to one another • Exploration of the overall experience of design practice in a strategy process • Explanation of how the design role differs across practitioner types and conditions bringing practices together • How ideas about design get translated and how they change strategy practices

Analysis/Review

Here, we review the academic literature on the advent of design in broader management settings, including the field of strategy. The scope of review presents the fragmented discourse, which at times overlaps and at other times not so. The review is organised to reveal the fragmentation, identify issues, and present opportunities in the discourse for future research. The review is organised into four broad thematic sections: *Background*, *Meanings*, *Propositions*, and *Applications in Practice*. The progression of the discourse traces the origins of design moving towards strategy. This is then followed by ‘meanings’, which highlights the problematic use of the term ‘design’ in strategy discourse, and the studies beginning to explore the synergies between design and strategy discourse. From here, we present the ‘propositions’ about how design is useful and complimentary for strategy, followed by the discourse that documents applications of design with strategy in practice. The paper concludes by providing opportunities for future research, taking an integrated view across the literature, and building on the greatest possible avenues for alignment between discourses.

Background: From the Origins of Design Practice Towards Strategy

1. From Design to Design Thinking

Design studies aim to understand how design works and the foundational methods or ideas contributing to design practices (Buchanan & Margolin, 1995). Prominent scholars of design have sought to unravel how design is understood across specialisations (e.g., fashion, interior, architecture, and so on) and explain the unique practices and sensibilities that are developed through the professionalisation of practice (Buchanan, 1985; Cummings & Angwin, 2011; Eppler & Platts, 2009; Paroutis & Knight, 2019; Stigliani & Ravasi, 2018; Whittington et al., 2006). The field of design and related theoretical discourses in design studies seek to distinguish a disciplinary field that is founded on creativity, abductive reasoning, and learning (Dorst, 2015). Buchanan (1992) argued for design to be seen as a new liberal art of technology – to legitimise a field of practice that is constantly adapting across contexts and problem spaces and is hard to replicate and, therefore, justify as a science. Buchanan’s work is significant as it describes the unique practices of design as a form of ‘design thinking’ built upon Rittel and Webber’s (1973) work exploring ideal approaches towards solving

wicked problems. Much of how design thinking has been discussed historically in design literature stems from attempts to explain how designers work differently to most – characterised as a unique way of thinking through a designer’s practice lens (Archer, 1965; Auernhammer & Roth, 2023; Cooper et al., 2009; Rowe, 1987). Therefore, the origins of design thinking are based on provocations about how designers work and how design practices may offer alternative approaches to problem-solving for non-traditional design problems and participants (see also extrapolations for the purpose of management: (Boland & Collopy, 2004; Brown, 2005; Liedtka, 2000).

Such ideas about the usefulness of design in new territories have also led to the development of new practices and placements of design (Buchanan, 1992). Buchanan (1992) presents a typology of this development as transcending “four orders of design” where the focus of designers’ activities evolves across the designing of “signs, things, actions, and thought” (p.10). Designer practices have become attuned to matters beyond traditional visual, product-based designs to experiences and complex systemic problem spaces that need thinking through. “The focus is no longer on material systems—systems of ‘things’—but on human systems, the integration of information, physical artifacts, and interactions in environments of living, working, playing, and learning” (Buchanan, 2001, p. 12). Such foundational work has helped to explain how design research has and will continue to develop and expand into exploring new ‘placements’ of practice from material things to institutional settings (Buchanan, 1992; Lee, 2024).

The expanding ‘placements’ of design directly relate to contemporary life and can be more broadly attributed to the meta-developments driven by neoliberalism, which has led to a general culture attuned to capital growth and high levels of consumerism (Julier, 2013, 2017). From this perspective, designers also contribute to what is consumed and how we, in our societies and individually, consume it (Fry, 2007, 2009). Designers operate within deregulated markets, private over state-owned contexts, with organisations that are seeking to be competitive and prioritise financial over societal and environmental interests (Julier, 2017). Designers’ abilities and contributions are therefore valued and geared towards creating new desirable (for better or worse!) things that follow these interests (Julier & Hodson, 2021). As the world has changed, competitive markets have evolved at a pace that is increased by technological advancements, streamlining processes and disrupting markets – organisational challenges and ambitions have morphed accordingly. Therefore, designers’

‘placements’ and skills have developed as a result and have increasingly been shaped by the changing needs (e.g., Calabretta & Kleinsmann, 2017). For example, experiential design and brand design have evolved to consider a customer’s whole experience across platforms and spaces, into digital worlds and across brand applications (Julier, 2017). In addition to making ‘things’, designers have increasingly become valued by managers to think more creatively about the problems that organisations face – by thinking *through design* (Cooper et al., 2009, p. 53) or *using ‘design thinking’* (Borja de Mozota & Valade-Amland, 2020). Designers are working in cultures of design where they create a certain type of ‘value’. This design culture exists in ‘circulation’ with other elements or conditions that shape how a designer will work (economic context, knowledge, environment, etc.) and is underpinned by practices – the activities occurring between people and material things (Julier, 2006). Designers carry forth a particular way of working, which is developed through cultures of design that are formed within specific locales and contexts (in a neoliberal world) around a particular problem and are realised as a set of sensibilities and practices within a specific locale (Mareis, 2021; Rylander Eklund et al., 2022).

Design scholars have described the sensibilities and attributes brought about through design practice as a profession and have further clarified the defining features that make up design practice (Cross, 1982, 1990). Cross (1982) established an important definition of what constitutes design as a disciplinary field by explaining “how designers work and think, and the kinds of problems they tackle” (p. 226), as observed in design studies from this period (see Table 3). Such articulation demonstrates the rich practices common among design practitioners, which formed the basis of the disciplinary field of design, from which it has since developed. Further studies have explained *how* designers’ ways of working are distinct and give meaning to the uniqueness inherent in design work (Kolko, 2010; Krippendorff, 1989; Stigliani & Ravasi, 2012, 2018). These studies comprise important concepts that explain the

- reflective nature of design practice as a learning mechanism (Schön, 1994)
- co-evolution of problems and collaborative nature of design practice (Dorst & Cross, 2001)
- significance of making things to progress design work as part of a broader ‘design way’ (Nelson & Stolterman, 2012) and iterating in design to make sense

of the design research and generate meanings through the designing of ‘things’ for those who will use the designs in the future (Krippendorff, 1989)

- attitudes and approaches that drive design sensibilities through practice (Boland & Collopy, 2004; Michlewski, 2008) and
- embodiment of a specific style of work developed through design education in studio format and processes of critique (Cross, 2023; Rylander Eklund et al., 2022; Tonkinwise, 2011). The distinction of design as an embodied experience determines the experiences of design that are attuned to the aesthetic, creative, and material production and sensemaking techniques that involve others (Kimbell, 2011, 2012; Kolko, 2010; Stigliani & Ravasi, 2018).

Table 3

Cross' Designerly Ways of Knowing: How Designers Work and Think, and the Kinds of Problems They Tackle (adapted from Cross, 1982)

Five aspects of designerly ways of knowing	Justification for design in general education
• Designers tackle ‘ill-defined’ problems. • Their mode of problem-solving is ‘solution-focused’. • Their mode of thinking is ‘constructive’. • They use ‘codes’ that translate abstract requirements into concrete objects. • They use these codes to both ‘read’ and ‘write’ in ‘object languages’.	• Design develops innate abilities in solving real-world, ill-defined problems. • Design sustains cognitive development in the concrete/ iconic modes of cognition. • Design offers opportunities for developing a wide range of abilities in nonverbal thought and communication.

It is these characteristics that inspired scholars and practitioners alike to consider how management might benefit from understanding more about how designers work, and propose design as a useful approach in management settings (Brown & Katz, 2009; Liedtka, 2000; Martin, 2009; Verganti, 2009). This development began the articulation of ‘design thinking’ as an extrapolated concept of design for non-designers, as an approach for management to innovate and find more creative approaches for problem-solving (Johansson & Woodilla, 2009; Johansson-Sköldberg et al., 2013).

2. Design Thinking Extrapolated from Design as an Approach for Managers

The idea that design is helpful for management is not new. Herbert Simon (1969) observed how engineers, as a representation of designers, work, proposing there was a different way of thinking about problems: “Engineers are not the only professional designers. Everyone designs and devises courses of action aimed at changing existing situations into preferred ones” (Simon, 1969, p. 129). Simon discusses how designers’

approach can be understood as a form of problem solving. He sought to articulate a ‘science of design’ that “frames design as a logical search for satisfactory criteria that fulfill a specific goal” (Huppertz, 2015, p.34). This work attempted to generate a more robust ‘scientific’ articulation of design process (Huppertz, 2015). Simon set out how design might be better understood for problem-solving by taking inspiration from the natural sciences:

This interface between the inner and outer environments; it is concerned with attaining goals by adapting the former to the latter. The proper study of those who are concerned with the artificial is the way in which that adaption of means to environments is brought about—and central to that is the process of design itself. (pp. 131–132)

Simon proposed that design – a representation of what it means to create artefacts as something new in the world – should be shared more broadly with managers as a legitimate approach to problem solving. Yet the contributions Simon has made to the design studies landscape are contentious, with some authors suggesting his proposals are not an accurate depiction of design practice (Meng, 2009). For example, You and Hands (2019, p. 1347) suggest that Simon presents a distillation of design practice in a rational format that follows procedures, becomes formulaic in parts, is analytical, and is an activity of the intellect. Other critics have noted that Simon’s work is too narrow in focus as it concentrates on design from a psychological standpoint and emphasises a positivist paradigm and cognitivist perspective (Schön, 1994; Soo Meng, 2009). Central to the argument against Simon’s proposals about design is that the disciplinary field of design is concerned with ‘constructivist’ paradigms (Cross, 1982) and has a broader scope that includes physical, material, and aesthetic experiences (Kimbell, 2009; Rylander Eklund et al., 2022). Because Simon’s proposals have been viewed as positivist in their orientation, design scholars have argued that the proposals about the promise of design approaches for problem solving do not capture the full experience of what it means to design (Johansson-Sköldberg et al., 2013). Additionally, Simon’s positioning of engineering as a form of design follows a limited perspective of what constitutes design practice (Dorst, 2011; Dzombak & Beckman, 2020; Kimbell & Street, 2009; Verganti, 2009). The case has been made for design as a distinct type of practice and a way of working that is not easily adapted to rational (e.g., management and business) work-style settings (Schön, 1994).

However, Meng (2009) provides an in-depth review of the characterisations of Simon's work, critically reviewing Schön's and others' declarations that Simon's positivist stance and presentation of a 'design science' is limited and too structured (Coyne, 2005). Meng (2009) and others (Crilly, 2021; Meng, 2009; You & Hands, 2019) highlight how Simon's later editions (editions 2 and 3) feature additional chapters which demonstrate an evolution in Simon's expressions and thoughts about design practice. They stress that these additional pages depict design approaches as being open, iterative, reflective and co-evolving through production (Crilly, 2021; Meng, 2009; You & Hands, 2019). This is much closer to Schön's depictions of design in the *Reflective Practitioner* (Schön, 1994). Meng (2009) and You and Hands (2019) argue that the oversight of later editions and the additional chapters have led to a 'doctrine' in design research where Simon's work has remained framed as a highly rational, technical problem-solving approach (e.g., Hassi & Laakso, 2011; Johansson-Sköldberg et al., 2013).

The counter-arguments regarding Simon's definition of design in management suggest that the holistic activities that are captured by 'design inquiry and action', outlined in design studies (Krippendorff, 1989; Nelson & Stolterman, 2012; Schön, 1994), are largely overlooked (Johansson-Sköldberg et al., 2013). Following Meng's (2009) argument, scholars should also consider the limited citing of later editions of the *Sciences of the Artificial*, as this may limit expressions of design in management contexts. Further, Simon's (1969) conceptualisation of design allows us to relate design to management, but the first edition provided a limited perspective of what contributes to the activities and potential of design within management and, therefore, to strategy. References to this work would thus benefit from integrating the work of later editions.

Contemporary scholarship exploring design for management has captured the essence of designers' work across product, service, communication, system, and environment design (Buchanan, 1992). Much of discourse on the rise of Design Thinking in Management attributes the product design firm IDEO and its leadership team as being pivotal players in promoting and spearheading the design process for use in management contexts (Auernhammer & Roth, 2021). According to IDEO, design thinking as an innovation management approach inspires innovation and, therefore, opportunities for businesses (Brown & Katz, 2009, 2011; D. Kelley, 2009; T. Kelley, 1999). IDEO's promotion of design thinking, therefore, contributed to the

popularisation of design thinking in management discourse (Auernhammer & Roth, 2021). At around the same time, key researchers, including Roger Martin (Martin, 2009), Jeanne Liedtka, and Tim Ogilvie (Liedtka & Ogilvie, 2011), also helped to disseminate the opportunities for design in management and make design more meaningful and understandable for non-designers in pursuit of innovation and growth (Cooper et al., 2009).

These origins are important to acknowledge because the translation of design as an idea into management was largely led (or inspired) by design practitioners and their explanations of how they work. Further, many of the popular design thinking frameworks used in business schools can be traced back to IDEO and their links to the Stanford d.school (Matthews & Wrigley, 2017).

However, the broad interest in design thinking can also be attributed to the economic developments and perceptions brought forward by the value that design is seen to bring to business (Heskett et al., 2017). For example, Julier (2017, 2013) argues that neoliberalisation has driven developments in design disciplines for management through:

- Deregulation, leading to privatisation of state-owned industries and globalisation – driving retail and corporate identity work
- New economies, such as digital economies and global manufacturing and distribution – developing a focus and requirement for branding, digital and experience design
- Financialisation, where value is derived from profits of the growing financial industry and other related mechanisms focus on profit generation – creating awareness about the opportunities for urban design, strategic design and design as a form of art
- Austerity, where privatisation of government services and functions continues, reducing welfare and doubling down on financialisation in society – social design for policy design and design activism (Julier, 2017, p. 12)

From this perspective, the evolution of design into management has largely been driven by the economic developments in society, where business managers have turned to design to support a particular strategic focus (Heskett et al., 2017). The developments of

design practice in society are also the result of ‘mutually reinforcing social determinates and conditions’ (Mareis, 2021, p. 13), which are dynamic and contextual. The applications of designers’ work, designer roles and/or design thinking within business are representative of a ‘design culture’ (Julier, 2013). The developments of design are, therefore, a reflection of the dominant dynamics that shape contemporary management practices and where the value of design is understood (Julier, 2006; Mareis, 2021). In this regard, although scholars and practitioners are among the proponents of design and management, managers’ interest in design and the development of new disciplinary applications of design (e.g., strategic design, policy design) are driven by broader economic shifts and related business dynamics.

In the context of rapidly advancing technologies and a need for more competitive products and services, innovation has become an important strategic performance objective for organisations (Heskett et al., 2017). As a result, ‘design thinking’ has become a popular approach in business over the past two decades (Cross, 2023; Micheli et al., 2019) and has been adopted by organisations as a strategic capability, led by managers and embedded within functions including strategy and strategic management (Pitsis et al., 2020). The value-add of design to non-designers is clear: by working in a more designerly fashion, managers create the opportunity to develop innovative and desirable propositions that companies can leverage to satisfy their customers further and extend their customer bases and, therefore, enable growth (Liedtka, 2018b). To make design accessible, design thinking is presented as a collection of design methods and mindsets that can apply different approaches to problem-solving, inspire new possibilities, and develop innovative ideas (Liedtka, 2014). Design thinking has been such a success that it has made its way into Business School curricula (Matthews & Wrigley, 2017), and organisations have created momentum by creating design thinking teams and undertaking capability-building programs (Cross, 2023; Micheli et al., 2018).

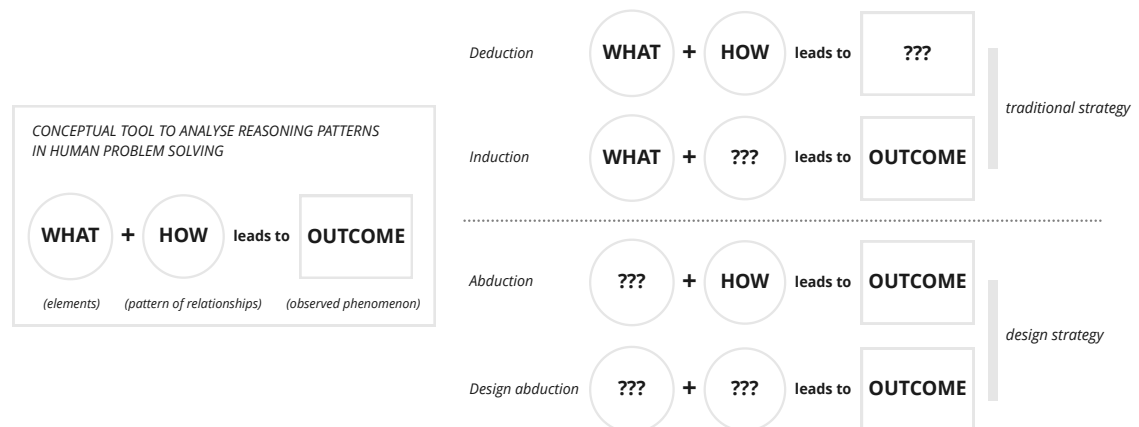
Despite the separation of design practice from design thinking, the interest and spread of design thinking as a concept in business has led to a greater awareness of the value of design for business more broadly (Nussbaum, 2011), and in doing so, has provided managers with another way of thinking through their problems (Johansson-Sköldberg et al., 2013).

Beyond business, design and design thinking have also been explored in areas such as healthcare innovation (Jones, 2013; Robert & Macdonald, 2017), policy design (Brinkman et al., 2023; Kimbell et al., 2022, 2023; Lewis et al., 2020), and legal design (Hagan, 2021; Le Gall, 2021; Madison, 2005). These broader explorations of design across contexts show the variety of applications where design shows promise to progress and improve situations or contexts. Yet, as in business and management contexts, they raise similar questions about the applications and placement of design.

Design thinking and design practices are founded on abductive logic, where “we only know something about the nature of the outcome, the desired value we want to achieve” and, therefore, the “how” [a pattern of relationships] and “what” [elements] are clarified by testing the possibilities that could work to achieve this goal in “parallel” (Dorst, 2015, p. 49). It is this quality of thought processing that fosters creatively geared, experimental, and innovative routines and practices that are distinct to problem-solving approaches within management (Rylander, 2009; Stigliani & Ravasi, 2018).

Figure 5

Four Patterns of Reasoning (adapted from Dorst, 2015, pp.44–49)



Business and management decision-making is described as following a rational approach that is linear and systematic in assessing evidence to derive the best course of action (Cabantous & Gond, 2011, Schön, 1994, Simon, 1979). The framing of such analytical approaches towards decision making remain a dominant approach in management, despite issues of individual bias and limitations of human cognition (Power et al., 2019; Schwartz et al., 2011). Yet rational approaches in decision making are not sufficient when seeking to resolve complex or ambiguous problems (Awati & Nikolova, 2022).

As an alternative, Martin (2010) describes the usefulness of design thinking as developing a “mastery” that balances both analytical processes that form the how and what (Figure 5) with intuition to increase the potential of finding new ways to conceive and solve problems as indicated by the “outcomes” (Figure 5). Martin, inspired by Charles Sanders Peirce², proposes abduction as an alternative to rationalist approaches to problem-solving. Specifically, abduction allows intuition to guide the exploration and validation of a problem space, compared to seeking data to prove or disprove an idea deductively or inductively based on past data alone (Davies & Coltheart, 2020). Further, Dorst (2015) argues that designers seek future possibilities by generating new data through (design) abduction – a form of reasoning from which designers can move between elements of a problem space to iteratively validate opportunities through testing, iteration, and refinement. Therefore, designers inherently adopt more intuitive approaches to complex problem-solving through exploratory approaches. As typical management approaches favour rational and deductive or inductive reasoning (Liedtka, 2010), managers now adopt design thinking as an intervention from rational approaches to problem-solving to encourage (or even permit) more intuitive approaches.

Despite this development, there have been sustained questions about how design thinking can be effectively translated as an idea in management (Cross, 2023; Dorst, 2011; Johansson-Sköldberg et al., 2013). Some have discussed the rise of design thinking in management as a fad (Pollach, 2022), others have criticised its accuracy and relevancy as a depiction of what designers do (Jen, 2017; Vinsel, 2017), and others still have highlighted the variation inherent in design outcomes and complications that arise when novices adopt design thinking (Seidel & Fixson, 2013).

Design thinking has been characterised as a patchwork of ideas, “bundles of logic and practices” (Beverland et al., 2015, p. 605), rather than a cohesive and consistent articulation of what and how designers work. This makes it difficult for managers to grasp what design thinking is and how to implement it. In the same vein, design thinking is criticised because it fails to appreciate the studio culture traditions of critique and experimentation that support designers’ learning and development, which nurtures

² Pierce’s work is hard to access as noted by: Martin, 2009, pp. 66–67, despite some collections of the writing being assembled by others in more contemporary times –e.g. selected writing Peirce, 1998).

designer sensibility or style of practice (Archer, 1979; Auernhammer & Roth, 2021; Rowe, 1987; Rylander Eklund et al., 2022; Tonkinwise, 2011). This is seen as an important omission because management environments are not set up to encourage risk-taking and deep reflection (Schön, 1994) – such cultures, in fact, hinder the ability of designers and managers to learn how to be curious and creative through design (Carlgren & Ben Mahmoud-Jouini, 2021).

Further, early discussions about design thinking imagined designers being somewhat aligned to design work, that they were to be placed alongside managers to guide the translation – recognising that the particulars of how designers work are also important to how managers learn and apply design to their work (Boland & Collopy, 2004; Carlopio, 2010; Rylander, 2009). But as Tim Brown suggests, “design has become too important to be left to designers” (Brown & Katz, 2009, p. 8), and over time, design thinking has become understood as an approach that does not explicitly require designers’ support or intervention to be used effectively (Liedtka, 2020). In this developed version of practice, designers have gradually become less involved, making design less connected with the extrapolated version of design thinking (Cross, 2023). This has led to a range of different perspectives on how design thinking works, what aspects of design practice are maintained in design thinking work, and whether this matters for the overall quality of ‘design’ produced (Micheli et al., 2019).

Further questions are who is best equipped to do design work (Cross, 2023; Kimbell, 2011, 2012) and which approaches are best used when innovating future directions through design (Magistretti et al., 2021). As design brings its own cultures of practice and traditions into management and strategy, applications of design thinking in management are not always well understood or accepted (Rylander, 2009). Therefore, it is common for designers to find themselves in complicated situations that test and challenge the uniqueness that they bring and their identities as designers (Carlgren & Ben Mahmoud-Jouini, 2021; Kimbell, 2011, 2012).

Rational approaches drive ‘knowledge work’ in management, meaning that how design contributes to problem-solving or business issues is not well understood (Rylander, 2009). This leads to challenges for designers working in business and whose capacities go beyond traditional design work, as there is a cultural misalignment between design and management approaches (Carlgren, Elmquist, et al., 2016). Designers face a range

of challenges inherent in management settings, including a lack of appreciation for aesthetic ways of knowing (Rylander, 2009), avoidance of ambiguity and uncertainty in the face of change, underappreciation of the social nature of work, insufficient recognition of the need for collaboration and the time it takes to undertake design work, and a lack of interest in external perspectives including from customers or other stakeholders (Carlgren, Elmquist, et al., 2016).

Despite the critical questions raised, design thinking has become a well-known concept in management that has taken on a life of its own in the management discourse (Daymond & Knight, 2023). The relationship between design thinking and designers' contributions towards strategy is still very much interlinked with the pursuit of creating design-led organisations (Micheli et al., 2018). In this capacity, designers and design are seen as an opportunity to build a competitive edge, as design becomes a strategic capability. While closely related to strategy, this approach further extends the reach and embeddedness of design, designers, and design thinking as a concept within organisations.

3. Building Design Capabilities and Design Organisations

The initial promise of design thinking was centred on how business could harness design thinking as a strategic capability (Micheli et al., 2018). These discussions largely followed two broad ideas: 1) design thinking capabilities are developed through greater investment in design, and 2) design practitioners within product or service organisations drive innovation and growth (Kotler & Alexander Rath, 1984). Here, organisations strive to become design-led by creating a central focus on design efforts that generate organisational value (Heskett et al., 2017) and competitive advantage (Carlgren et al., 2014). Design thinking is supported by designers and their inherent practices, in tandem with managers establishing a greater awareness of design thinking. The maturity and embeddedness of design are measured to demonstrate success (Whicher et al., 2011). Some organisations have been drawing on design-led innovation as an organisational strategy to propel innovation for some time. For example, Proctor and Gamble use design to drive product innovation (Leavy, 2010); Nike uses design to develop aesthetic distinction and product innovation (Brownlee, 2013; Gorsler, 2021); and Airbnb's design ethos drives better start-up practices and customer-centred outcomes (Schmiedgen, 2015, 2015).

Design-led organisations see their competitive strategy propelled by how well they manage and orchestrate design activities to deliver superior product and service design, or even better external customer and client engagement (Micheli & Perks, 2015; Quint et al., 2022). The elevation of design in organisations has also led to new roles, such as chief design officers, to oversee and coordinate these activities and greater opportunities for management roles to support such efforts (Pinheiro & Franqueira, 2022, 2024). While the intention behind these changes is strategic, design and management practices are shrouded in economic traditions and do not always mesh well (Heskett et al., 2017), which makes the task of combining them difficult (Micheli et al., 2018). Accordingly, design in organisations is expected to align with strategy or support strategy in some way, but designers' contributions to strategy work still require further articulation and clarification (Simeone, 2020).

Despite the lack of clarity, designers' roles have become more strategic and edge towards strategy production. This is because designers' roles have had to evolve to more effectively attend to the strategic overlay and relevancy of organisational design work and activities (Gemser et al., 2023; Micheli et al., 2018; Quint et al., 2022). This progression has also seen the role of design recognised 'as strategy' (Micheli et al., 2018, p. 635) because designers' work has a significant strategic influence on an organisation's activities and performance in the market. However, designers are still needing to develop legitimacy in relation to their ability to influence and shape strategy (Micheli et al., 2018). This has become a task for strategic designers, where the role of design is to co-develop strategy with strategists and other stakeholders (Calabretta & Gemser, 2017).

4. Designers Becoming More Strategic

In this development of design practice, strategic designers become actors in strategy work, connecting the dots between design activities but also contributing to the formulation of strategy and its implementation (Calabretta & Gemser, 2017; Chung & Kim, 2017; Manzini & Vezzoli, 2003; Stevens & Moultrie, 2011). As such, designers aim to design future directions for organisations – what Buchanan (2001) points to as the progression of design shaping systems and environments (Lee, 2024). Yet, much is still to be understood about how strategic designers undertake their work and how

strategic design represents the development of a new kind of design practice (Dorst & Watson, 2023).

The degree to which design has been successfully adopted in light of its promise for management as a strategic capability needs to be better understood, along with developing an awareness of the positive and negative implications for design practitioners (Lee, 2021; Nussbaum, 2011). Further, we consider it essential to expand our understanding of the consequences of design thinking in management, with a particular focus on strategy and the discourse surrounding developments across the design, design thinking, and strategy fields.

The Meanings of Design in the Strategy Discourse

Strategy scholars have been discussing design for many years but confusingly have used both ‘design’ as a verb to describe the act of designing as part of practice or process and ‘design’ as a noun to describe a plan or way to control strategy (Carlopio, 2010). This distinction is important to acknowledge as different scholarly contributions (e.g., Mintzberg, 1990) use the noun to suggest that ‘design’ *is not* constructive for strategy generation. In the verb form, the act of designing holds a meaning related to the making and generation of strategy through design (thinking) practice or process (Carlopio, 2010). Contemporary contributions in the strategy literature have started to explore design practices or processes in strategy work in a way that impacts how strategy is formulated. These contributions are concerned with exploring the micro-perspective of practice and practitioners’ work where designerly thinking and working are integrated into strategy practice (e.g., Knight et al., 2020).

We identify three dominant narratives that capture how design has been discussed in relation to strategy. First, we explore the unfortunate use of ‘design’ to describe traditional economically geared approaches that seek to plan and control strategy. Second, we discuss proposals that explore the synergies and potential for design in strategy. Third, we review research on design applications in strategy in their various permutations. We traverse these domains of discourse to raise important issues and ideas that scholars and practitioners may need to contend with in future research, as well as the underdeveloped aspects of practices that would benefit from future research.

1. Design Means to Plan and Control

In reviewing the literature exploring design concepts, we noted the peculiar interpretation of design as synonymous with economic, rationalist approaches to strategy, which has been sustained over the years. Mintzberg (1990) uses the label ‘Design School’ to describe traditional rationalist approaches to strategy. He builds his argument around the work of Christensen, Andrews, Bower, Hamermesh, and Porter in their 1982 edition of *Business Policy: Text and Cases*, with particular attention to Kenneth Andrews’ sections. In this text, the authors draw on their approach to strategy as inspired by the foundation strategy scholars Alfred Chandler (1962), David G. Moore (1959), William Newman (1963), Seymour Tilles (1963), Igor Ansoff (1965), and the McKinsey consulting group (as discussed by Reilly, 1955). These scholars are widely known for focusing on economic-led and macro/external analysis to determine strategy. This ‘school’ typifies classical approaches to strategy that favor *pre-thought* and robust *external analysis*. In this context, Mintzberg (1990) uses the terminology of ‘design’ to emphasise the intention of strategy to focus on creating “[a] goal, plans and controls” (p.185). With this description, the idea of design as something robust and unmalleable, set forth to constrain and direct a specific situation in advance, takes hold. The ‘creative act’ of strategy, as outlined by Kenneth Andrews, (Christensen et al., 1982, p. 186) lacks a rich definition but is used to imply that strategy is ‘custom-made’, which results in a lack of one strategic direction or a clear directive. Mintzberg (1990, p.175) challenges this to suggest organisations usually only produce one strategic direction. The ‘creative act’ as proposed by Andrews (1982) is thus used to describe how strategists arrive at the formulation of strategy in the mind, and not further descriptions is provided. The issue with design in this sense (according to Mintzberg) is that strategists decide on a strategic direction from their own considerations and thoughts, define the options and then go about implementing it. Such activity leaves little room for actual creativity and variation (Mintzberg, 1990).

Others have continued using design to signal similar implications for strategy. For example, Chia and Holt (2009) use ‘design’ in the same way one may use the word ‘plan’ – here, they use it to label the default approach to strategy that is founded on pre-determining future directions based on limited perspectives of the past, which they argue is the antithesis of emergent strategy. They follow Mintzberg and Waters’ (1985) view of ‘emergent strategy’ as an essential condition of strategy that integrates strategy

formulation with strategy implementation (Mintzberg, 1979; Mintzberg & Waters, 1985). Strategy emerges as patterns of actions, decisions, and coping strategies that allow strategy to adapt and respond to change where necessary for the organisation's performance. Chia and Holt (2009) build on this idea and critically review classical rationalist approaches to strategy that infer prior knowledge and assume that individual actors drive the conception of strategic possibilities and subsequently make choices without attention to existing social structures and systems (methodological individualism).

The idea of strategic design informed by rational assessment and realized in clear execution becomes a conceit of those unable to appreciate the potential of a life lived outside the confines of the intellect and unwilling to acknowledge the debilitating emptiness of always seeking the world head-on. It is, we suspect, time for strategy without design. (Chia & Holt, 2009, p. ix)

The word 'design' is used here to describe how control and order are established within the making and implementation of a strategy. Senior managers formulate strategy as a top-down approach, driving deliberate intentions based on prior knowledge and conventions. Therefore, they suggest that the opposite, to create a strategy *without design*, is to embrace the emergent nature of decision making within organisations, which arises out of specific situations. In this way, designing strategy is the opposite of strategy arriving in situ, without prior planning and as an immediate response to developing scenarios that could never be pre-empted through 'design' (Chia & Holt, 2009).

Chia and Holt (2009) describe "strategy *without design*" as a type of "negative capability":

Strategy without design is about embracing the uncertain, the ambiguous and the unknown as a pervasive human condition without persistently hankering for clarity and certainty, whether that certainty is found in the most ancient and comforting traditions or the most recent fashions. (p. 210)

'Design' in this context is used to mean a 'means-end' logic in that the thinking behind the strategy development will lead to successful outcomes. However, the realities of

strategy are more multi-faceted than the rational forms of strategy. According to Chia and Holt (2023), strategy

assumes the strategist as an originating point who authors, and so authorizes, legitimate action within one or more organizational settings. Yet the multiplicity of organizational life cannot happen at the behest of such decision events. Exceptions, accidents, chance events, surprises pockmark everyday organizational life, and no matter how comprehensive its reach any strategic design is always being overwhelmed by occurrence. (p.21)

The ‘strategic design’ that is discussed here is synonymous with traditional strategy. However, researchers will need to overcome this framing and use of the term ‘design’ when considering *strategic design* as it is used in design discourse, and broader applications of design in management. The reason, we argue, is that ‘strategy without design’, as proposed by Chia and Holt (2009), is ironically more akin to an articulation of strategy *with and through* design. Therefore, in order to progress the idea of design and strategic design in strategy, this unfortunate use will need to be addressed or, at the very least, acknowledged. Further, how studies find space to explore design may also depend on this clarification or correction, if you will.

One approach to aid this could be to promote the study of design practices in strategy by neutralizing the significance of existing definitions and meanings. For example, Kimbell (2012) proposes that design needs to be explored through the frame of practice theory to acknowledge that it consists of both the thinking (‘sayings’) and ‘doings’ and holds a particular meaning and value for practice that makes a clear link to design as an emergent practice, rather than a ‘school of thought’:

By focusing on situated, embodied material practices, rather than a generalized “design thinking,” we may shift the conversation away from questions of individual cognition or organizational innovation. Instead, design becomes a set of routines that emerge in context. (Kimbell, 2011, p. 300)

Such approaches may also follow the practice turn in strategy research, which pays attention to how strategists work in relation to others and material things (Jarzabkowski & Spee, 2009; MacKay et al., 2021; Turner, 2018; Vaara & Whittington, 2012; Whittington, 1996). By advancing a richer meaning founded by accounts of practice,

such terminology complications may be redressed. Thus, the development of new meaning by accounts of practice can afford design and strategic design to be discussed in a more positive light, as being a developing, relevant and contemporary form of strategy practice.

2. Design as a Metaphor for Strategy

Other scholars have gone some way to argue the relevancy of design in contemporary strategy discourse, outlining how design is, in fact, most suited to complex and ambiguous situations (Bansal et al., 2024; Buchanan, 1992; Rylander, 2009; Schön, 1994) as realised through its sensemaking features (Dong et al., 2016; Kolko, 2010). Fundamentally, design is all about learning and exploring through prototyping, iteration, and embracing ambiguity (Michlewski, 2008). To reinforce this point, Michlewski (2008) explains that designers possess a “willingness to engage in a process that is not pre-determined or planned in detail and where outcomes are unknown or uncertain” (p.380). This attitude is inherently connected with the need to accept higher risk, stipulated by the temporary loss of control over the situation (Michlewski, 2016, pp. 53–55).

Liedtka (2000) somewhat corrects the above interpretations of design in her exploration of design as a useful “metaphor” for strategy. Here, Liedtka takes Mintzberg’s use of the word ‘design’ to demonstrate how relevant and useful design (thinking) could be for strategy and how design might enhance strategy work.

Design offers a different approach and would suggest processes that are more widely participative, more dialogue-based, issue-driven rather than calendar-driven, conflict-using rather than conflict-avoiding, all aimed at invention and learning, rather than control. (Liedtka, 2000, p.28)

Liedtka (2000) suggests that strategy and design are more closely linked than perhaps previously understood. She posits that design can synthesise broader problem sets, explore potential futures more progressively and creatively, deliberate and validate directions through testing, consider the relational aspects of agreeing and deciding on directions, and create greater opportunities for alignment around a shared vision for the future through stakeholder engagement (Table 4). “*The metaphor of design offers rich possibilities for helping us to think more deeply about the formation of business*

strategy, and it is time to liberate the idea of design from its association with outmoded approaches to strategy” (Liedtka, 2000, p.9).

Table

Implied Characteristics of Design Thinking and Possible Implications for Strategy Making (adapted from Liedtka, 2000)

Characteristics	Design thinking (from design theory)	Possible implications for strategy making
Synthetic	Design is made to emerge and exhibits diversity across problems.	Design seeks internal alignment and understanding dependencies. It integrates across levels to enable alignment.
Adductive	Design thinking visualises a future state and creates a blueprint for realising the vision.	To spend time and focused attention on achieving ‘discovery, direction and destiny’ to create new compelling strategic intent through alternative generation (inspired by Hamel and Prahalad (1995)) that identifies a gap between current and future state, linking past, present and future state.
Hypothesis-driven	Creativity drives hypotheses; analysis of data is used to test hypotheses.	Hypothesis drives efficiency, accommodating both creative and analytical thinking through iterative cycles of hypothesis generating and testing to facilitate learning.
Opportunistic	Design thinking is iterative and seeks discovery of emergent possibilities.	Opportunism advances an intended strategy by leaving possibilities open – not losing sight of alternative strategies.
Dialectical	Design thinking moves between and deals with constraints and conflicting demands to envision possibilities.	Design thinking mediates tensions between constraints, contingency, and possibility. It allows flexibility, dealing with unknowables while seeking strategic ambition.
Inquiring and value-driven	Design thinking welcomes inquiry from broader audiences to make reasoning explicit and uncover values through conversation as a means to connect ideas with audiences.	Values drive choices between alternative strategic options. Success is contingent on shifting the existing mindset where argumentation is facilitated through dialogue – strategic conversations to shift mindsets.

Therefore, established streams of discourse can be leveraged in building a strategy-with-design stream of discourse, which may be further advanced through practice accounts as the approaches are developing in and through practice.

3. Design as an Idea for Strategy

There is an opportunity for future research to reset that narrative and capture the potential of design practices in strategy (Carlopio, 2010, p. 4). Existing literature stemming from design studies may be better leveraged for discussion concerning strategy work, such as the discourse on design thinking and other conceptions of design in shaping organisational life (Fixson & Rao, 2014; Lee, 2024, 2024; Liedtka & Kaplan, 2019).

Strategy discourse may build an understanding of design as an activity that generates opportunity and possibility over the desire to create order and control through pre-planned strategy (Liedtka, 2000; Mintzberg, 1990). We see that design approaches can deal better with ambiguity and complexity due to design abduction (Dorst, 2015), which is driven by inquiry and action (Nelson & Stolterman, 2012; Schön, 1994), aesthetic knowledge, intuition, and creative collaboration (Krippendorff, 1989; Stigliani & Ravasi, 2018). Therefore, a realignment of the nomenclature of design will benefit the progression of studies seeking to align strategy and design practices and, more generally, comment on exploratory, open, inclusive, creative, and adaptive approaches for strategy practice.

The Propositions of Design in Strategy – Synergies and Potential

1. Comparisons and Contrasts of Design and Strategy Processes and Practices

The literature exploring concepts of design practice in strategy is relatively recent and has followed the interest in design as a strategic capability across management and product and service innovation domains. Yet, as Magistretti et al. (2021) point out, how we use design to innovate future directions is not well understood. Carlopio (2010) highlights this gap in the strategy literature, raising specific concerns about how strategies become future-oriented and innovative. Carlopio's work moves the prospect of design as a metaphor to a strategy process, which is significant as this shift explores the idea of design practices being relevant for strategy before the field of design thinking became established as a body of literature.

In *Strategy Innovation by Design*, Carlopio (2010) focuses on the strategic task of “creating an innovative future”. He outlines six design phases (see Table 5), drawing on

designers' accounts of practice about how design is useful for strategy. Carlopio argues that other dominant paradigms of strategy, such as the positioning paradigm (Porter 1980, 1996), the resource-based view of strategy (Barney, 1991; Prahalad and Hamel, 1990), and the emergent paradigm (Mintzberg & Waters, 1985; Mintzberg, 1998), are limited in ability to create “radical strategic innovation” as they are about “uncovering and reacting to what is” rather than “working into an unknown future state” (Carlopio, 2010, pp. 162–168). Carlopio positions design as “a holistic combination of the rational and the intuitive, the head and the heart. It works best when the future must be created and cannot be predicted via analysis as a linear extension of the past or the present” (p.166). He argues phase by phase why these approaches are useful for strategy as an opposing idea (see Table 5). Carlopio is careful to outline also how interactive and three-dimensional the model of design is given that elements within each step can be repeated and applied to different stages of the process – in other words, this approach should not be read as a linear, step-by-step procedure.

Table 4*Comparison of Traditional Strategy Development and Strategy by Design (adapted from Carlopio, 2010, p.13)*

The process	Strategy by design	Traditional strategy development
The brief: begin with the end in mind	Specification of requirements and constraints; clarification and questioning of the problem, aims and objectives of the project, assumptions, priorities, business and financial objectives, the project plan, and resource requirements and allocation; establishment of performance targets and measures	Develop a winning strategy
Research: the art and science of seeing the different way	Discovery and exploration; divergent and solution focused; qualitative and quantitative data collection and exploration; participant observation; explore latent needs and possibilities	Confirm hypothesis and justify decision; convergent and problem-focused; quantitative data collection and analysis; direct observation; identify facts
Concept generation: the art (and science) of generating different views	Generation of many ideas; intuitive, creative/lateral thinking	Focus on choosing the best idea; rational, linear/vertical thinking
Prototyping: making an idea clearly visible	Prototype; iterate with multiple feedback loops; converge over time	Not usually a part of the process
Evaluation and refinement	Development of an answer over time; evaluation via both objective and subjective criteria	Develop answer or rationally chose, justify, or prove solution
Delivery: output and presentation	Routinely visual presentation; may be supplemented verbally and in writing	Usually verbal or written

Similarly to Carlopio, Chhatpar (2007) proposes that a “juxtaposition of design methodologies” (p. 31) may be useful for strategy making. Such an approach emphasises an interplay between design approaches favouring “qualitative methods that uncover market and user insights, with traditional decision-making approaches ... which tend to be more rigorous and analytical” (Chhatpar, 2007, p. 31). The proposition lifts the idea of design processes into a strategy frame, highlighting the iterative and generative nature of design in considering strategic options. Chhatpar argues that design is useful for strategic decision-making as it stress tests strategic assumptions through customer insights and generates a more adaptive approach to assessing several strategic options in an ‘interweaving way’. Chhatpar (2007) and Carlopio (2010) both present propositions about what a strategy process might look like following a design approach, but they stop short of explaining how this translation may be integrated back into strategy practice and management paradigms.

Despite the focus on Innovating futures, Carlopio and Chhatpar do not extend their work into futures studies (Poli, 2024). Some contributions have started to frame the relevance of designers and design practices for strategy in shaping futures (Fry, 2007, 2009; Shamiyeh, 2010) and, further still, move the discourse towards the opportunities for design as a supportive practice for futures thinking through foresight practices (Buehring & Bishop, 2020; Buehring & Liedtka, 2018). Through a ‘futures’ lens, framing the potential for design is to consider strategy work as an activity that can accommodate ‘redirective’ practices (Fry, 2009) towards actions and design outcomes that support desirable and sustainable futures and expand the scope of analysis to more readily capture environmental needs – something that is lacking in contemporary strategy theory and practice (Bansal et al., 2024). Additionally, contributions that explore how to utilise design practices that more readily promote planning into a future-space where there is less opportunity to rely on existing knowledge and/or data (Martin, 2009; Simeone & D’Ippolito, 2022). The meaning of strategy and design through this lens is placed firmly in futures-oriented work where activities like futures thinking and foresight activities support good strategy work (Berglund & Dimov, 2023; Gümüşay & Reinecke, 2022; Hall et al., 2022; Rindova & Martins, 2021). From a futures studies perspective, the meanings of design can be understood as providing an opportunity to imagine new futures, to conceptualise, research and ethically design future strategies that capture broader human and non-human considerations that are critical in shaping sustainable strategy (business and human/society sustainment) (Bansal et al., 2024; Fry, 2004; Simonse et al., 2023).

2. Thinking Differently About Strategy

Similar propositions have emerged from the design management field regarding ways design could be useful for strategy (Cooper et al., 2009) or become strategic by leveraging the best aspects/outcomes from design activities to support an organisation’s strategic objectives (De Mozota & Wolff, 2019). However, design suffers from a lack of understanding and legitimacy in practice, which is needed to support its elevation and visibility as being strategically relevant (Micheli et al., 2018). As observed by Holand and Lam (2014), “many higher level managers miss the opportunity to gain benefits of designer’s creativity by not including them in strategic planning processes, indeed designers are often dismissed as having nothing valuable to contribute” (Holland & Lam, 2014, p. 1). To manage this issue, design management plays an important role

between management and business in advocating and negotiating on designers' behalf. Lockwood and Walton (2008) explain, "Design Management [is] to bring design and design thinking into organizations, in support of the development of corporate strategy" (p. xii).

As a result, many early propositions about the developing intersection of design and strategy arose from this space – where designers became more able to advocate and discuss business issues like a design manager. As designers worked more collaboratively with clients, clients invited designers to consider their work in more strategic ways. When designers' roles are expanded through experience and interactions, they build trust with clients. They can create greater opportunities to have a voice in the future directions of the organisation through design (Chung & Kim, 2017; Jevnaker, 2000; Perks et al., 2005). Design moves closer to strategy where clients can see the potential, as they see value in a designer's contributions towards a strategy based on their experiences and understanding of the approach having worked alongside them.

3. Alignment of Concepts in Strategy

The potential of designers to affect strategy work has long been discussed (Kotler & Alexander Rath, 1984; V. Seidel, 2000). However, designers still face barriers when trying to integrate into strategy as they do not hold legitimacy in the eyes of management, and generating legitimacy requires advocacy and support from others (Carlgren, Elmquist, et al., 2016; Micheli et al., 2018). Micheli et al. (2008) find that the strategic value generated through design is often taken for granted (see also: Dumas & Mintzberg, 1989; Gorb & Dumas, 1987) and designers have to continuously 'argue' for their strategic value for the organisation (Micheli et al., 2018, pp. 648–649). To succeed in realising the potential for design in strategy, designers are being asked to learn the language of business to gain authority and, therefore, legitimacy to contribute to strategy-making activities.

Indicative of this are studies proposing an overlap between design and strategy and requiring an epistemological alignment between the two sets of practices (Johansson & Woodilla, 2009; Johansson-Sköldberg et al., 2013; Stevens & Moultrie, 2011). For example, Simeone (2020) juxtaposes design and strategy through the lenses of strategy emergence and systems, power dynamics, persuasion and deception, and rational and

analytic perspectives. Simeone (2020) presents the potential overlap for strategy and design but argues that hybridisation and adaption are required across theoretical constructs for the overlap to be seen. Fixson and Rao (2014) also outline the synergies with design thinking in emergent strategy as an approach that enables adaptation and experimentation to better cope with uncertainty and create opportunities for novel strategy ideas. They note that this approach is an underexplored opportunity in strategy. Stevens and Moultrie (2011) explore how the influences and contributions of design practices relate to the strategic perspectives of competitive forces, strategic fit and value creation, resources and capabilities, and strategic vision. By mapping how design can be better utilised, Stevens and Moultrie clarify conceptual overlaps and link the potential of design as a strategic capability. However, these connections are preliminary, and subsequent work has not built on these to further establish the role of strategic design in strategy. Drawing on previous studies (Brest et al., 2015; Liedtka & MacLaren, 2018), Liedtka and Kaplan (2019) propose that design improves strategy because design helps strategists to see opportunity differently, learn through action, and explore options through a 'portfolio of bets'. These options represent a selection of possible strategic directions and choices that can be decided upon and enacted when required, enable strategy through storytelling and engagement, and enable business model transformation.

Similarly, Fraser (2007) outlines three gears of design: user understanding, concept visualisation, and strategic business design. The three gears support strategy when they are embedded within the organisation. However, they are also contingent on managers following a design mindset of open-mindedness, abductive thinking, embracing iterative processes, and overcoming constraints. So, while designers are increasingly more aligned with business, managers are also asked to develop a sensibility towards design (Liedtka, 2020). Therefore, developing strategic design or design into strategy requires some level of expertise and a transfer of skills. The discourse is caught up in who needs to do what on each side; however, how these practices interact with one another perhaps needs to be better understood.

Strategy is all about designing future propositions and, therefore, requires different practices through design. As the review above highlights, much has been written about the opportunities and synergies around design thinking and design for strategic purposes; however, there is still so much to be explained about the way these two fields

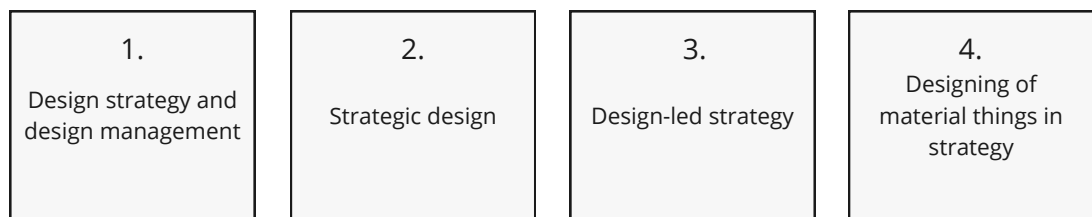
interact to shape strategies through practice (Magistretti et al., 2021). Further, the role of designers in this work is not clear, and, therefore, the circumstances of designers in strategy work and how strategists and managers work with designers need to be better understood (Cross, 2023; Johansson-Sköldberg et al., 2013).

The Applications of Design in Relation to Strategy

We now look specifically into how design is used in strategy in its various forms to understand the current approaches in relation to strategy. The literature suggests that design appears in strategy in four ways: 1) Where *design strategists* develop strategies and plan to guide designers' work to meet an organisation's overall strategic objectives and deliver strategic outcomes; 2) Where designers have begun undertaking strategic work and are learning business methods and tools to support the development of strategy, capturing the developing field of *strategic design*; 3) Where strategists have begun to experiment with design thinking, sometimes described as *design-led strategy*; and 4) Where the interlinking of design objects and the materialisation of things, as in making things, in relation to strategy potentially overlaps into design practice, although this is underdeveloped in research.

Figure 6

Summary of Applications in Practice



1. Design Strategy and Design Management – Realising Strategic Alignment for Design(s)

Design strategy involves developing a strategic overview and alignment for design projects. Here, design strategists work to align an organisation's strategic objectives or opportunities with design outcomes. As Grimsgaard (2022) explains, “a design strategy is a plan for what the design should do, how it is to be developed and used, all in line with what is determined in the company's goal and strategies” (p.336). Olsen et al. (1998) further elaborated that design strategy is “the effective allocation and

coordination of design resources and activities to accomplish a firm's objectives of creating its appropriate public and internal identities, its product offerings, and its environments” (p.56).

Design strategy plays an essential role in translating the strategic intentions of organisations back into the design process as design principles that set a direction for designers' work (Roberts, 2023). Design strategy is distinct from strategic design, as it concerns the longer-term planning direction of design outcomes (Stevens & Moultrie, 2011, p. 2). The distinction is important because the purposes of both types of design practice are different, yet sometimes they can get caught up in the same discourse about strategy (e.g., [Brown, 2019](#); [Simeone, 2020](#)). Design strategists undertake strategy work to align the designs and designers around central strategic issues and opportunities for the clients and organisations they are working for. In contrast, strategic designers are involved in designing solutions in the mix of organisational stakeholders and customers (Calabretta & Gemser, 2017); they are, in fact, designing new opportunities in relation to informing strategy.

Similar to design strategy, design management is a function to align and manage design processes to deliver on an organisation's competitive advantage most effectively (Dumas & Mintzberg, 1989). Design management plays a more significant leadership role in directing and aligning design activities within organisations to design strategy. Much of the discourse promoting the role and opportunity for design management in organisations has been framed alongside depictions of the Danish Design Ladder (Storvang et al., 2014), which is a maturity model used to track and discuss the development of design management practices in organisations. The model tracks the maturity of design implementation from ‘no’ design management to understanding the value of design as a product, to function and culture (Björklund et al., 2018). While simplistic in nature, it has been used to support design managers' description about the development of design capabilities and to measure the value of design for organisations, and has evolved as a framework for these purposes (Westcott et al., 2013). The development of design thinking as a popular approach in management has also given design management greater purpose, as “design moves from lower-level product-centred design strategies to the complexities involved in designing business processes and customer touch-points on an organizational level” (Cooper et al., 2009, p. 50). Therefore, the management of design activities through design management nurtures

design as a strategic capability but also supports the direction of design in aid of strategy work (Quint et al., 2022).

Design management also plays a key role in advocating for design within the business, which is important in elevating design's strategic relevancy for strategy (Micheli et al., 2018; Micheli & Perks, 2015). Design managers have extensive knowledge and sensibility about the value of design and advocate for its use effectively. It is this quality that turns design managers into 'silent designers' (Dumas & Mintzberg, 1989; Gorb & Dumas, 1987). Silent designers may not understand that they play such a critical role in design. Still, because they have a comprehensive design understanding, they can effectively communicate the opportunities presented by using design to management, thus becoming a critical link in the process of designing. Managers can also act as silent designers when they advocate for the design teams' issues and translate these back into the organisations.

Design strategists and design managers play an important role in translating between strategic designers and other designers and thus advocate for and enable design to become a strategic capability and a process that can inform strategy. As potential 'silent designers' (Gorb & Dumas, 1987), they may also be overlooked as important actors in the strategy process. Therefore, it is important for research to see and account for these types of actors and their potentially influential role in merging design and strategy.

2. Strategic Design – Designers Co-determining Strategy

Strategic design has emerged as a disciplinary practice that brings together design practices and strategy to maximise an organisation's potential through strategy (Noble, 2011; Stevens & Moultrie, 2011). As an emerging field, the origin of its development and focus have taken on a variety of forms. For example, strategic design has been described as being about designing material products and services that are strategically relevant for an organisation (Manzini & Vezzoli, 2003). Others have stressed the role of strategic design in the discovery of systemic issues and the need for change, where the 'matter' of the *designed thing* has a relationship to the 'meta' of the *system* it belongs to and where 'dark matter', as *otherwise unknown issues or considerations*, arise and are then revealed through design work (Hill, 2012). From this perspective, the act of

designing a new object, space, system, or experience gives rise to new strategic insights that would have not been understood otherwise.

Strategic design is also viewed as a specific design role that is more intentionally aligned with strategy functions and other stakeholders to co-contribute to strategy work (Calabretta & Gemser, 2017; Stevens & Moultrie, 2011) (Table 6). In this view, strategic design is seen as a developing practice that stems from the presence of design in organisations (Gallego et al., 2020). Participatory approaches that lead to value creation elevate the purpose and intention of design as a strategic activity, which can activate the involvement of broad stakeholders engaging in future-focused activities (Bouman & Simonse, 2023). Calabretta and Gemser (2017) emphasise that the collaborative nature of strategic design ensures that all relevant stakeholders are involved in crafting future design directions, which ensures that propositions meet customer needs and are feasible and viable for the organisation. A designer's role becomes more strategic the closer the work gets to strategy and the more it aligns with the strategic ambitions of an organisation (Calabretta et al., 2016, p. 9).

Table 5

How Design Contributes to the Formulation and Implementation of Strategy (adapted from Stevens & Moultrie, 2011)

Design's strategic capabilities	
Customer voice	Designers bring a customer voice to strategy. Customer advocacy generates better strategic positioning as designers bring forward more informed market opportunities.
Disruptive outcomes	The development of new designs (products and services) can influence supply chain dependencies and the broader value chain.
Mediators in the system	Designers have a mediating role between key stakeholders who create synergistic opportunities and partnerships.
Reinforcing organisation's values	Designers create powerful tools for shaping and communicating a corporate culture that expresses and reinforces the organisation's values and purpose.
Providing creativity and fresh perspectives	Design approaches stimulate creativity and provide fresh perspectives in strategy making.
Visualising futures to shape thinking	Design is being used by organisations to consider unpredictable futures and through visual representation allow decision makers to draw on intuition.
Making complexity visible	Designers help some business leaders visualise complex systems and provide a common vision.

Despite an increased focus on the relationship between design and strategy (Auernhammer, 2024), there is still a lack of clarity about what it means for strategy practice. The variety of propositions in the strategic design discourse has created confusion about how designers can apply their design skills to strategy. Further explanation is thus required for design to be seen as a distinct disciplinary field of design practice (Dorst & Watson, 2023; Noble, 2011).

The professionalisation of strategic design demonstrates a recognition of designers' value in supporting business decision-making and realisation of innovative visions (Holland and Lam, 2014; Jevnaker, 2000; Norman, 2016; Scaletsky and Costa, 2019 (Gallego et al., 2020) and, therefore, highlights the significance of design practice for management. We see in the literature that designers' roles have evolved to support such activities; accordingly, the design practices used for strategy are evolving (Chung & Kim, 2017; Roberts, 2023). This development has created great opportunities for design, but in doing so, it has exposed designers' skills gap in management and strategy concepts when translating design visions and practices into management contexts (Micheli et al., 2018). As a result, research has focused on how strategic designers can align better with management practices and frameworks to productively support decision-making and communicate and advocate for the strategic issues arising through design work (Calabretta & Gemser, 2017; Grimsgaard, 2022; Holland & Lam, 2014).

While definitions of strategic design place designers in a collaborative context with strategists (Calabretta & Gemser, 2017), the proximity of strategic designers to strategists is not well understood, nor is the influence on strategy practice. In a study that looked at how design was becoming more strategic, Jevnaker (2000) explains that

a creative interplay among designers, entrepreneurial managers, coaching engineers, and top management teams tended to foster more imaginative thinking, not merely sensing but also exploiting new opportunities. Over time, this can lead to the kinds of highly successful commercial outcomes ...Perhaps the creative efforts achieved by the fusion of design and business start a chain reaction that affects corporate design, as well as business development and, eventually, corporate strategy. (p.46)

Thus, Jevnaker (2000) proposes that when design and management are brought together, strategic design can impact an organisation in many strategic ways. However, much of the discourse about strategic design fails to explore the interplay between strategists and strategic designers in realising strategy.

Two problems concerning strategic design present themselves in the literature. First, strategic design is a developing field, even only a professional strand within the field of design. However, the field has not been explored in relation to general strategy practice beyond the concept of strategic design as a strategic capability supporting the management of a design-led organisation. Therefore, what is the usefulness of design practices and approaches for strategy practice? Second, strategic design is presented as a distributed practice of design across contexts. Therefore, how does strategic design influence strategy, and in what way does it contribute to strategy making?

3. Strategy and Design (Thinking) – Design-led Strategy

Boland and Collopy (2004) have proposed that managers would benefit from thinking and working more like designers, as inspired by Boland and Collopy's observations of Frank Gehry architects. They claim that "managers are designers as well as decision-makers ... but for too long [management action has] emphasised the decision face of management over the design face" (p.4). Boland and Collopy (2004, p. 6) have further proposed that a 'design attitude' over a 'decision attitude' affords managers the opportunity to seek the best possible answers by exploring possibilities first rather than settling for alternatives through analytic approaches to problem-solving that surface the options already derived from what is at hand. This 'paradigm' of design practice in management shapes much of the maturing discourse tracking the developments of design thinking in management (Verganti et al., 2021). Subsequently, this growing domain of research has dedicated itself to understanding how 'non-traditional designers', such as managers or strategists, use design thinking methods and tools in their work (Liedtka, 2020; Liedtka & Ogilvie, 2011). While there have been various proposals about how design (thinking) practices and processes might be useful for strategy (Diderich, 2020; Fraser, 2009; Liedtka & Kaplan, 2019; R. Martin, 2021), very few studies exist to explain how design thinking is being adopted in strategy (Daymond & Knight, 2023; Knight et al., 2020; Magistretti et al., 2021).

To account for the limited documentation of this kind of strategy practice, we examine the contribution of design-led strategy as an approach that may become a foundational concept to the strategy discourse. Knight et al. (2020) provide a rich account of how design thinking ‘data’ can be used in what they describe as a design-led approach to strategy. The study assumed that design thinking could be transferred into strategy through product managers “who were deeply imbued with design-thinking methodologies” (Knight et al., 2020, p.37). As a result, the researchers were interested in observing how “product and strategy managers work together to enact this integration [of design thinking to strategy] in practice” (Knight et al., 2020, p. 37).

Knight et al.’s study focused on understanding how a variety of materials were used by strategists, managers, and other stakeholders to engage with customer-centric data as part of strategy workshops and meetings. The primary focus was not so much on understanding how design thinking was used as an overall approach to forming strategy but on how design thinking generates a different set of data insights and opportunities to engage with the data through a dynamic mix of material artifacts. The authors propose that the practices of ‘simulating’ as engaging concurrently with multiple user-derived materials on their own, “reviewing as managers reflecting on materials on their own, collaborating as managers collectively organising and creating materials to build collective understanding of strategy problems, and ‘conversing’ as managers involved in discussions without design materials elevate design-led customer data insights into strategy work, whilst also extending a manager’s knowledge about the market from beyond what is possible within the constraints of a ‘boardroom’” (Knight et al., 2020, p.44).

The results of this study suggest that the use of design thinking approaches affords a richer and deeper engagement with the data to better synthesise issues relating to both product *and* market fit. The authors argue that this is important because, through this process, managers can appreciate and consider the various tensions between the product and market fit that traditional approaches do not afford. Further, managers can develop more meaningful insights when they deliberate on what is possible through a combination of ‘intense individual reflection’ and collective discussions about the strategic potential of the data presented through this type of design thinking work. Curiously, designers were a stakeholder group involved in this work. However, their role was not discussed in any great detail in facilitating or supporting the development

of artefacts. We see this as a likely oversight but also as something that needs to be considered considering the development of strategic design and designers' contributions to strategy work.

In contrast, Simeone and D'Ippolito (2022) reveal rich descriptions of approaches to foster design-driven foresight using design to understand, propose, and respond to future developments using design methods in strategy development. They note that the designers (a design agency) are the facilitators and people leading how design is integrated into strategy work. This is important as research has shown that when strategy sessions are facilitated by managers or senior leaders, participants' contributions can be unnecessarily influenced and inhibited, leading to manipulation of debates and conversations (Sund & Le Loarne Lemaire, 2022). Design facilitation is a key part of design workshops as facilitators mediate discourse and activities to promote divergent and reflective thinking while creating a space to share, collaborate, and imagine possibilities in collaborative ways (Harre et al., 2021, pp. 8–9). These conditions open up possibilities to broaden participant perspectives and consider strategy constructs over time (Harre et al., 2021).

Further research may investigate the linkages between external 'design' facilitators as moderators of design-led sessions to elevate the conversations around strategy in more future-forward ways (Buehring & Bishop, 2020). From the literature exploring design thinking more broadly, we know that designers play an active role in transferring design knowledge while learning to be more strategic due to their new placements in organisations (Carlgren, Elmquist, et al., 2016; Elsbach & Stigliani, 2018; Yoo & Kim, 2015). Yet, propositions exploring design thinking for strategy decenter designers in the work (Liedtka, 2020; Liedtka & Kaplan, 2019). We see that designers' influence in the translation of design in strategy is an underdeveloped theme in research. This is important as we grapple with the question of how design knowledge is developed and transferred productively, and in which ways designers as professionals might play a role in this work (Kimbell, 2012). Further, the episodic nature of design thinking in strategy, rather than being an embedded and embodied experience, needs to be critically assessed (Rylander Eklund et al., 2022), as design and design thinking may have broader applications that are not well understood as yet (Magistretti et al., 2021).

4. Material Things to Aid Strategy Work – Artifacts and Visual Communication

One stream of research which integrates design and strategy is centred around the socio-material opportunities brought to strategy through strategy and design artefacts (Orlikowski, 2004). Material artefacts are central to supporting strategy work and identifying strategic directions (Balogun et al., 2014; Jarzabkowski et al., 2013; Werle & Seidl, 2015). PowerPoint presentations feature as a critical and common tool for collaborative sense making and focusing the scope of strategy (Kaplan, 2011; Knight et al., 2018). However, other material objects such as whiteboards and spreadsheets are also involved in crafting strategy (Jarzabkowski et al., 2013, p. 41). Artefacts as material things form a central feature of strategy work, contributing to the articulation of new design directions (Wechsler & Schweitzer, 2019).

Scholars have recognised the opportunities for strategists to visualise strategy work (Eppler & Platts, 2009; Whittington et al., 2006), particularly in *open strategy* work, which intentionally invites broad participation from employees and other stakeholders towards formulating a strategy (Paroutis & Knight, 2019). In fact, the notion of ‘stratography’ has been developed to advance and formalise visualisation aspects of strategy (Cummings & Angwin, 2011). *Stratography* serves as an activity that visualises the complexity and relations of strategy to engage participants of strategy work in strategic conversations more effectively (Cummings & Angwin, 2011). One might argue that ‘stratography’ is the function of a visual communication designer, whose job is to visualise complex materials into digestible and meaningful content for audiences (Buchanan, 1992; Krippendorff, 1989). Therefore, visual communication designers, or designers working in extended placement in strategy, may also have a specific role in supporting the visualisation and dissemination of strategy ideas to aid strategy work (Davis & Hunt, 2017; Goransson & Fagerholm, 2018).

The production of design artefacts can not only support the articulation of design's value but also support sense-making and idea-generation activities (Elsbach & Stigliani, 2018; Kolko, 2010; Liedtka, 2020; Liedtka & Kaplan, 2019). Artefacts make the strategic issues tangible, which creates opportunities to discuss topics of strategy openly and for the various stakeholders involved, to find common ground (Buchanan, 1985; Golsby-Smith, 2007). Artefacts as objects of design invite “rhetoric, argument and demonstration” (Buchanan, 1985) – the “success [of a designed object, in this case, a

strategy] is not judged theoretically by appealing to the knowledge of a small group of experts, but practically by appealing to the interests, attitudes, opinions, and values of users” (p. 19). Bringing artefacts into strategy has great potential, such as engaging aspects of strategy work that activate *technological reasoning*, being how designers use materials and processes to solve strategic problems; *ethos* as a representation of the organisation’s (aspired) values; and the power of *emotion* as a persuasive form (Buchanan, 1985). Therefore, when design artefacts are seen as tools to engage and build strategy more effectively, designers’ roles may be recognised as critical enablers of human engagement in strategy (Lee, 2024). It is already commonly acknowledged that the material-discursive aspects of strategy are important features of strategy work (Balogun et al., 2014), but the linkages between design and strategy for these purposes have not been made. Design perspectives and strategic designer contributions may elevate the usage of artifacts as artifacts can be more finely crafted to attend to the politics of strategy work (e.g., Marabelli et al., 2015; Randhawa et al., 2018).

Further, the designers’ approach brings particular attention to the aesthetic that helps engage people emotionally and meaningfully in work but also fosters future-oriented conversations productively (Comi & Whyte, 2018; Stigliani & Ravasi, 2012, 2018). For Liedtka, the opportunity of design in strategy is to use visualisation tools and material objects to generate support and facilitate the implementation of change (Liedtka & Kaplan, 2019). The use of artifacts to communicate, debate, and share messages and ideas with the people who will live out the strategy recognises that organisations are largely defined by the people who support their existence; a successful strategy then will reflect the ethos of the organisation it represents (Lee, 2024).

Additionally, some scholars have documented how physical artefacts can assist strategists and stakeholders in imagining a new future (Heracleous & Jacobs, 2008) and developing a common understanding of the strategic issues (Gustafsson, 2023). Much of the discourse on design and design thinking for management explores prototyping and experimentation as a means to engage participants in conversations about new design directions (Brown & Katz, 2009; H.-Lee & Park, 2021). Bringing physical artifacts into strategy provides an opportunity to get feedback on developing ideas, helping to generate meaning for participants and ‘designers’ (as ‘affordances’, see: Chia & Holt, 2023; Krippendorff, 1989). It elicits important feedback for consideration about the final strategy ‘design’, thus providing an opportunity to build buy-in and

engagement (Clark & Smith, 2008; Liedtka, 2020). Artefacts and prototypes can also engage customer groups about potential strategic opportunities and direction for organisations (Daymond et al., 2024; Wechsler & Schweitzer, 2019).

The material and visual aspects of strategy work provide a rich avenue for future research where strategic designers' approaches to making and communicating ideas can be leveraged in strategy work to enhance the engagement of participants in strategy. This discourse is so closely linked but not yet integrated as a comprehensive view of how design can be used in strategy work in this capacity.

Progressing the Discourse and How Design is Being Used in and for Strategy

In strategy work, design methodologies and approaches to visualising materials and tools not only help develop new ideas but also build buy-in as part of the outcome. More focused work exploring the visual and material synergies between design and strategy discourse may, therefore, prove to be fruitful. Such focus builds on the developing recognition in organisational studies that material and visual aspects play an essential role in organisational life (Boxenbaum et al., 2018). Further, the material aspects of practices in strategy are necessary to strategy work, as represented in *strategy as practice* and *design as practice* perspectives (Jarzabkowski et al., 2013; Kimbell, 2012; Schatzki et al., 2001). There is still room to discover how designers may become more embedded in this work and how other artefacts beyond PowerPoint may be used to engage participants in strategy work to support the articulation and implementation of it.

Figure 7

Identifying Synergies in the Discourse to Advance Pluralistic Research

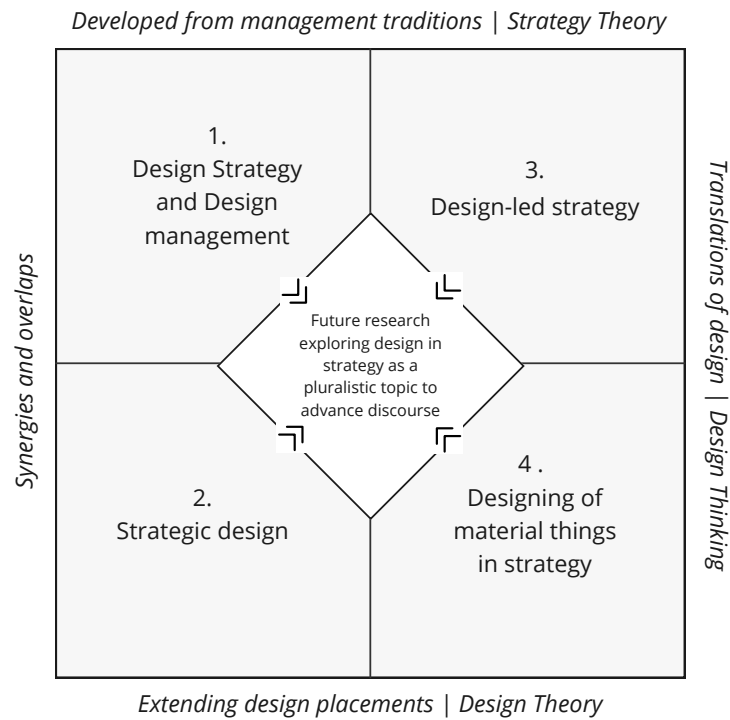


Figure 7 provides a summary of the relationship between different discourses that approach the topic of design in strategy. We find that design's existing roles and applications in relation to strategy arise from different theoretical perspectives, such as design or strategy theory or design thinking and other practice traditions. We have summarised the synergies between design and strategy discourses thematically: 1. Design strategy and design management, 2. Strategic design, 3. Design-led strategy, and 4. Designing of material things in strategy. We propose that these categories indicate how future research exploring design in strategy can be more pluralistic. Without this pluralistic stance attempts to discuss design in strategy may further perpetuate the divide between perspectives and applications of design for strategy in future research. We describe how through each category below:

1. *Design strategy and design management* have existing functions within management, but these concepts get mixed up in the discourse exploring strategic design. Therefore, future research may seek to make a clear distinction to capture developments and influences of strategic design and design-led strategy.

2. *Strategic design* will continue to be explored as a new placement of design skills within organisational settings (Buchanan, 1992; Lee, 2024). The opportunity for developments in strategic design studies is to further integrate and explain the relationship to strategy (Chung & Kim, 2017; Simeone, 2020; Stevens & Moultrie, 2011). Otherwise, design risks being seen as a tangential activity secondary to strategy practice (Whittington et al., 2011).
3. *Design-led strategy* builds on the traditions of strategy but adds design thinking models and concepts, which may continue to be explored through the ‘paradigm’ of the design thinking discourse (Verganti et al., 2021). The origins of this discourse remain grounded in management practice. Therefore, the implications for how design is understood within management contributions will be bounded by a ‘design thinking in management’ construct, leaving designers’ influence and involvement to the side (Cross, 2023).
4. *Material aspects* of design and strategy practice more formally to support more inclusive and generative strategy activities (Liedtka & Kaplan, 2019; Paroutis & Knight, 2019). Still, there is an underappreciation of the opportunities that the material activities of strategic designers might bring into strategy practice (Goransson & Fagerholm, 2018; Stigliani & Ravasi, 2012, 2018). Therefore, future practice and discourse may benefit from the opportunities for design in creating material and visual aids to support strategy work, noting that design traditions of visual communication are not recognised by such activities.

Discussion and Implications

In this literature review, we have sought to provide a contextual overview of how design and strategy are converging across the related discourse. Overall, the scholarly discourse exploring design and strategy is very disjointed and fragmented across theoretical perspectives and epistemological origins (Johansson-Sköldberg et al., 2013). While many attempts have been made to connect the potential of strategic design with strategy practice, there are inconsistencies and insufficient linkages between the research streams to explain how design and designers are involved in strategy-making

work. At the same time, we know that strategic designers co-develop strategies with others, including strategists (Calabretta & Gemser, 2017). Strategists are still regarded as the primary agents of strategy formulation, even when designers are involved tangentially (Knight et al., 2020). This leaves the role of designers and their interactions with strategists while doing strategy work underexplored. Further, we still lack an understanding of how strategists find value in design work that is more intrinsically linked to making and informing strategy development, particularly considering the development of strategic design. As a result, it is necessary to continue to investigate and understand the roles of design in strategy by accounting for the influence of strategic designers and strategists in this work.

We outline the following themes and questions for further researchers to consider in developing knowledge about the role of design in strategy and practitioners' roles in this work.

Framing Designing in Strategy Work – Linkages to Existing Research on Strategy That is Sympathetic to Create Approaches to Problem-solving

In our literature review, we find no agreement about what 'design' means for strategy. Using design as a word to describe control and planning limits the potential conception of what designing as an action brings into strategy. We propose that future strategy discourse would benefit from bringing in a more nuanced theoretical critique of this research to explore and explain the phenomenon of incorporating design in strategy. Understanding the role and value of design practices can contribute to the strategy discourse that contends with ambiguity, complexity, and adaptation (Bansal et al., 2024). Strategists may benefit from understanding more about the professional practices of designers given that designers are used to working with complex and wicked problem subject matter (Buchanan, 1992); in this view, a designer-embodied practice (Cross, 1982, 2023; Nelson & Stolterman, 2012; Rylander Eklund et al., 2022) and style of work (Tonkinwise, 2011) may bring a unique perspective and description of what design practitioners as 'carriers of design ideas' are contributing to strategy and how they are shaping or changing strategy practice (Wedlin & Sahlin, 2017).

We also see synergies between emergent strategy and design (Mintzberg & Waters, 1985; Simeone, 2020), despite the peculiar use of design nomenclature in the emergent

strategy literature (Chia & Holt, 2009, 2023; Liedtka, 2000; Mintzberg, 1990). Future research may be able to expand the current discourse by examining how design might support emergent strategies in different kinds of strategy settings. To achieve this, we propose that future studies examine how design is brought into the experience of strategy to better define the synergies and overlays between different approaches to strategy and how they are described as design practices within strategy settings (Jarzabkowski & Spee, 2009; Kimbell, 2011, 2012; MacKay et al., 2021; Schatzki et al., 2001; Vaara & Whittington, 2012).

Practitioners and the Convergence of Disciplines as a Translation Activity

Existing research tells us that the development of design thinking has changed the role of designers in management settings, which has called for both designers and managers to consider new ways of working through the elevation of design within organisations (Boland & Collopy, 2004; Micheli et al., 2018). As much as elsewhere in management, the translation of design into strategy requires an openness to understanding the complexities and challenges that come when ideas are translated from one context or setting into another (Wedlin & Sahlin, 2017). As Johansson-Sköldberg et al. (2013) note, design thinking is a translation of design ideas for the use of managers, and “as with any translation, nuances of meaning may be left out, and acknowledging these ‘left out dimensions’ is important academic work” (p. 22). They critique how design is described as a tool rather than an experience. Other studies have explored the embodied and performative nature of design work, which is essential to its distinctiveness (Carlgren, Rauth, et al., 2016; Nelson & Stolterman, 2012; Rylander Eklund et al., 2022; Tonkinwise, 2011). This research suggests that specific types of learning cultures are required to transfer design ideas effectively. Future research may be able to focus on how and by whom ideas of design in strategy are being translated to better understand the roles of various actors in the translation and further explain the approaches being used (Dorst & Watson, 2023).

Future research may also seek to understand the significance of how a designer or strategist comes into their work to better account for the practices that unfold in a given setting (Rouleau & Cloutier, 2022). If design can be translated in different ways depending on its context, it may also be prudent for researchers to explain the

contributing factors behind specific permutations of design in strategy and the roles of designers in this work (Chung & Kim, 2017; Micheli et al., 2018).

Advancing Discourse That Moves Beyond the Characterization of ‘Design Thinking’ as the Main Application of Design in Strategy Contexts

As we have transcended the scholarly domains of design studies, we find that the framing of design thinking in strategy may lead to narrow conceptions of how to best understand the usefulness of design in strategy. We echo the observations of Kimbell (2012) to suggest that there is an excellent opportunity to investigate the adoption of design from a social practice theory perspective as it decenters the actors in the work to reorientate the focus on the practices used in a given setting. We identify that design thinking becomes a paradigm of practice as it may be relevant for strategy and management (Knight et al., 2020). However, it is not the only way to understand how design influences or shapes strategy (Buehring & Bishop, 2020; Gallego et al., 2020; Simeone & D’Ippolito, 2022). This is because we already know that designers can bring various perspectives and practices to strategy, such as workshop design and facilitation, visualisation, and experimentation (Harre et al., 2021; Lee & Park, 2021; Roberts, 2023), and that their involvement can be overlooked as inconsequential to the outcome of strategy. Therefore, narrow conceptions of what design can be for strategy through a design thinking lens may limit a full comprehension of how design is best used in strategy work. This notion also complements calls in the strategy-as-practice literature for a more intentional understanding of the role of actors other than strategists in strategy work (Hautz et al., 2017; Löwstedt et al., 2018; Whittington et al., 2011).

Practitioners and Practices – Designers and Strategists and Issues of Identity

The professionalisation of both design and strategy means that practitioners undertaking their roles in one domain or another have developed a sense of identity about how they are best to undertake their work. This can be set up by how a practitioner’s peers act in their work and the expectations set by best practices espoused by the organisations they are undertaking their work within (Schön, 1994; Whittington et al., 2011). This means that practitioners will come into their work with particular ideas and conceptions about how best to do their work, which is also shaped by their organisational/cultural context and cultural expectations for how best to do what they do (Carlgren & BenMahmoud-

Jouini, 2021; Johansson-Sköldberg et al., 2013; Micheli et al., 2018). From this perspective, we see a great opportunity for understanding better how each profession combines its skills to realise strategy and how identity may shape the outcomes of this practice (Rouleau & Cloutier, 2022; Sund & Le Loarne Lemaire, 2022; van Grinsven et al., 2020).

Overall, we find fertile ground for researchers exploring the role of design in strategy, in relation to how it is understood and how both strategic designers and strategists incorporate design approaches into strategy, and exploring the limitations and opportunities for design thinking further. We also find it essential to consider strategic designers' and strategists' personal experiences and the implications of new practices for designers and strategists.

Conclusion

Strategy and design appear to have many synergies. However, the fragmented conceptualisation of the role and value of design in strategy needs to be consolidated. This review provides an overview of the theoretical landscape traversing the design, strategy, and design thinking research, which intersects experiences from the professional fields of design, strategic design, strategy, and management. Our review groups four distinct approaches that intersect design and strategy: 1) Managing designing activities: design strategy and design management; 2) Designing for strategy: strategic design; 3) Design thinking in strategy: design methods used in strategy work; and 4) Designers and material things in strategy work. By clarifying these intersects, researchers can more clearly align and connect practices and theoretical contributions on how design influences, shapes, and changes strategy practices. We see this development as supporting future research that progresses ideas about design in strategy, with clarity about the pitfalls and issues that have arisen through existing discourse across design, strategy, and design thinking domains. We hope this study goes toward establishing constructive conceptual strands to build towards more progressive approaches in strategy by more seriously considering the opportunities for design in strategy work (Bansal et al., 2024; Chia & Holt, 2023; Simeone & D'Ippolito, 2022).

Chapter 3. What is the Role of Design in Strategy? Exploring Emergent Relevance and Practices

Abstract

The widespread adoption of design methods in management has increasingly led strategists to adopt design thinking approaches and designers to contribute to strategy. Strategic design practice has emerged as an application of design for strategy work. However, how strategic designers engage with strategy is unclear, and the degree to which strategists use design thinking is not well understood. Here, we aim to shed light on the role(s) of design in strategy. Our grounded theory study explores how expert designers and strategists contribute to strategy formulation and how design practices are used more broadly. We propose that design practices shape strategy through five roles – experiencing, extending, enhancing, informative, and generative – with each role informing strategy through different modes of engagement. We apply a translation theory lens to explain the significance of the dynamic roles of *design* in *strategy*. We argue that strategic designers and strategists translate and co-construct new practices when integrating design practices into strategy work and that design thinking is representative of only one of the various modes of engagement. Finally, we outline practical considerations for designers and strategists working at the intersection of strategy and design, and point to future theoretical challenges for researchers.

Keywords: Design, Design Thinking, Strategic Design, Strategy, Translation

Introduction

The design discipline has expanded into many fields, industries, and problem spaces (Buchanan, 1992), often attributed to the rise of design thinking as a design practice in management contexts (Cross, 2023; Hassi & Laakso, 2011; Nussbaum, 2011), resulting in greater awareness of design's value and different uses as a strategic capability (Jevnaker, 2000; van der Bijl-Brouwer & Dorst, 2017). Design principles are increasingly used in business and management practice (Carlgren, Elmquist, et al., 2016).

Strategic design happens at the intersection of strategy and innovation, supporting the development of new propositions for various stakeholders while generating value within organisations (Stevens & Moultrie, 2011). This elevation of design as a strategic capability has given designers more agency in the strategy process, leading to ‘strategic design’ roles and aligning designers with strategic work (Auernhammer, 2024; Calabretta & Gemser, 2017). For example, Chief Design Officers now coordinate and manage design as a strategic capability (Quint et al., 2022; Stuhl, 2014).

Strategic designers work with managers (Calabretta & Gemser, 2017; Muratovski, 2015), extending their skills and experience in strategy settings. Their gradual integration into strategy work (Muratovski, 2015) has evolved design into a new strategic capability (Brown, 2019; Calabretta et al., 2016; Grimsgaard, 2022; Holland & Lam, 2014). As such, managers try to understand how design applies more broadly to their practice (Beckman, 2020; Carlgren, Rauth, et al., 2016; Pitsis et al., 2020).

Like in design thinking, descriptions of design in strategy largely omit the designers’ involvement in this work (Knight et al., 2020; Liedtka, 2000). Further, designers believe their practices have been poorly adopted in management (Cross, 2023; Johansson-Sköldberg et al., 2013), with the translation from design thinking done by non-designers (Kimbell, 2012; Tonkinwise, 2011). The disconnect between the design and management discourses (Johansson & Woodilla, 2009; Micheli et al., 2019) and questions about design application in practice is growing (Brown, 2005; Brown, 2019; Carlopio, 2010; Micheli et al., 2018; Simeone, 2020; Simeone & D’Ippolito, 2022; Stevens & Moultrie, 2011). In particular, there is a lack of consensus on its effectiveness (Badke-Schaub et al., 2010) in developing intended outcomes (Brown & Katz, 2009; Liedtka & Ogilvie, 2011; Martin, 2009). We thus need to understand better how design is applied to strategy and how strategic design practitioners and strategists are involved in this work.

This study investigates the fragmented and developing discussions about design practice in strategy from a micro-perspective (e.g., Whittington 1996) by focusing on the views and experiences of design and strategy practitioners. We identify five roles capturing how design contributes to strategy practice: *experiential*, *extending*, *enhancing*, *informative*, and *generative*. The roles show multiple modes of translating design practices into strategy practices. This is important as we move from considering only

one ‘paradigm’ of practice (e.g., design thinking) to an integrated set of practices. Design in strategy is dynamic because it is adopted differently across the roles, and collectively, these roles contribute to shaping new strategy practices. We describe how design practices are used across practitioner types, settings, and purposes, introducing a conceptual framework of the design-strategy intersection. We thus provide the basis for advancing understanding of the impact of design on strategy.

Our grounded theory study reveals how the design roles in strategy vary and how a dynamic flow of translation occurs. Based on a translation theory perspective, our main theoretical contribution is to explain how and why this occurs. The translation perspective helps explain how ideas are shared between different actors, here practitioners, and embedded within contexts (Wedlin & Sahlin, 2017). Thus, we present the roles of design in strategy as a dynamic “ecology of translation”, where design is used in various ways, and the context affects how practitioners engage in the work. We conclude that strategic designers and strategists significantly translate and spread design practice, impacting how design is used and integrated with strategy work.

Theoretical Background

Design as a Strategic Capability

Over the past 20 years, the meaning and use of design in management have evolved, leading to broader design applications and new design roles within organisations (Muratovski, 2015). Service, customer experience, and strategic design represent this evolution from designing symbols, communication artifacts, and products to designing services and organisational systems (Buchanan, 2001; Lockwood, 2010) and coordinating design processes for strategic advantage more effectively (Lockwood & Walton, 2008; Micheli et al., 2018). Organisations have built cultures and driven innovation by embedding design capabilities (Carlgren & BenMahmoud-Jouini, 2021). Managers have tapped into the broader potential of design as they distribute and build design capabilities (Prud’homme van Reine, 2017).

Micheli et al. (2018, p. 635) identify three roles for design: 1) as a service representative of aesthetic orientation; 2) as strategy, where design is a collaborative activity utilised to form a new organisational direction; and 3) as a dominant perspective, embedded across

the organisation. This illustrates the potential of design as an organisational capability and recipe for organisational success. Design skills and capabilities become reoriented and expand from a capability of producing ‘things’ to informing a way of working and thinking and bringing designers closer to considering business strategy.

Accordingly, managers who adopt design thinking are well positioned to leverage the strategic potential of design and develop interventions for organisational change and external value propositions (Boland & Collopy, 2004; Buchanan, 2004; Orlikowski, 2004). Design thinking is a collection of processes, methods, and mindsets that are easily understood and experimented with in non-traditional design settings (Auernhammer & Roth, 2021; Brown, 2008; Liedtka & Ogilvie, 2011). It allows managers to augment their working methods to gain inspiration for new possibilities and develop innovative ideas (Michlewski, 2016b). Design thinking has become popular in the business world (Cross, 2023; Micheli et al., 2019), generating awareness of and appreciation for its broader application to support strategic capabilities and activities. However, this has created confusion about the roles of managers, strategists, and designers who use design thinking for strategic purposes.

Design thinking gives managers a ‘process’ view of design, further clarified by methods (toolkits) and mindsets to guide managers. Hence, designers are no longer needed for the ‘design’ work because anyone can adopt the process when the ‘recipe’ is followed accurately (Auernhammer & Roth, 2023). The discourse has departed from a focus on designers and their distinct practices towards the application of design for managers. This shift overlooks the unique learning modes designers encounter when developing their specialist skills (Cross, 2023; Tonkinwise, 2011). It is problematic as adopting design thinking requires a different approach than conventional management paradigms (Carlgren, Elmquist, et al., 2016; Carlgren & BenMahmoud-Jouini, 2021). Others have criticised the accuracy and relevancy of design thinking as a depiction of what designers do (Jen, 2017; Vinsel, 2017) and have pointed to the varied outcomes and complications when adopted by novices (Seidel & Fixson, 2013). Further, design thinking has not always been successfully adopted across contexts (Liedtka et al., 2013).

Whether design has been successfully adopted through design thinking, considering its promise for management, needs to be better understood, along with the implications for design practitioners (Kimbell, 2011, 2012; Lee, 2021; Nussbaum, 2011). Otherwise, the

substance of design may become diluted or, at worst, lost (Badke-Schaub et al., 2010). This is an important discussion as we explore the roles of design in strategy, all the more so as the literature distinguishes between design practitioners and strategists or managers who adopt design thinking (e.g., Micheli et al., 2018; Knight et al., 2020). The discourse also indicates that design thinking and practices mutually inform strategy through organisational and strategic capability development. Yet, there are different applications of design in practice.

Strategy and strategy research has also started considering how various actors are involved in co-developing strategy and the implications of creating such openness (Giraudeau, 2008; Seidl, von Krogh, et al., 2019; Splitter et al., 2023; Whittington et al., 2011). While designers' knowledge and practices have been applied in strategy work, strategy discourses rarely link design to strategy-making (e.g. Stigliani & Ravasi, 2012, 2018, p. 777), with a few notable exceptions (Buehring & Bishop, 2020; Simeone & D'Ippolito, 2022). Nevertheless, strategy-making shows synergies with design actions and practices. One example is the idea of strategy as an emergent needs-based practice rather than pre-planned and instigated (Chia & Mackay, 2023; Fixson & Rao, 2014; Mintzberg & Waters, 1985; Simeone, 2020). There are also synergies with how design deals with complex challenges (Gümüşay et al., 2022; Jarzabkowski et al., 2023) and wicked problems (Burke & Wolf, 2021; Camillus, 2008, 2016).

While the current discourse in strategy aligns with design approaches, and synergies have been identified, these are yet to feature more prominently as part of strategy-making (Jevnaker, 2000; Micheli et al., 2018; Simeone, 2020; Simeone & D'Ippolito, 2022; Stevens & Moultrie, 2011). Further, better integration across scholarly fields to use design approaches in strategy is needed (Dorst & Watson, 2023).

Finally, the discourse about the relevance of design practitioners to strategy practice needs consideration (Kimbell, 2011, 2012). Knight et al. (2020) examine how design practices can be used in a design-led approach to strategy. Still, they do not pay attention to the role of practitioners in this process, although we know that designers are involved in strategic conversations (Chung & Kim, 2017; Micheli et al., 2018; Micheli & Perks, 2015; Perks et al., 2005). Some have argued that understanding a design practitioner's proximity to strategy is key to understanding how design is relevant to strategy (Carlopio, 2010; Liedtka, 2000). More recently, others have referred to

strategic design as an emerging practice and new role for designers; that is, strategic design is now a field of practice in which designers explicitly co-determine strategy formulation and implementation (Calabretta & Gemser, 2017).

In sum, strategic design practices are neither common nor well-understood (Auernhammer, 2024; Dorst & Watson, 2023; Simeone, 2020). Equally, how designerly ways of thinking and working have been integrated into strategy practice and, therefore, into traditional strategy practitioners' toolkits is still unclear (Carlopio, 2010; Knight et al., 2020; Simeone & D'Ippolito, 2022). Considering this fragmentation, a holistic understanding of how design practices are carried through into strategy practice and the role of strategy and design practitioners in this work must be developed.

Micro-level Insights

Traditional strategy perspectives have focussed on macro-perspectives of policy and planning, taking precedence over understanding how strategies are produced and the role of managers in strategy (Weick & Quinn, 1999). However, scholars have advanced micro perspectives on how individuals contribute to strategy development (Chia & Mackay, 2023; Jarzabkowski et al., 2016), including the roles of external and internal agents or actors and their impact on the outcomes of strategic work. The varying levels of focus within the remit of these micro studies, from micro-foundations to social practice theory, indicate distributed contributions at the micro-level of analysis. For example, the micro-foundations perspective in strategy focuses on understanding the human behaviours and approaches causing firm performance (Felin et al., 2015). The 'practice-turn' (Schatzki et al., 2001) has led to strategy being viewed as a dynamic interplay of practices between humans based on how they interpret and respond to day-to-day activities (G. Johnson et al., 2003). Studies in this field help to situate the relationship of human agents based on what strategy is produced and how it is produced, generating a better understanding of the implications for strategy development and outcomes. As micro-perspectives take precedence, studies are increasingly focused on the humans participating in the work, considering how matters of *knowledge*, *capabilities* and *power/agency* (Clegg et al., 2017) lead to strategies.

A greater understanding of humans in strategy work has also opened avenues to understand various actors' involvement (Belmondo & Sargis-Roussel, 2023;

Whittington et al., 2011), including designers. It has been critical to explore the connection between designers and managers in undertaking design thinking and the role of designers in this work (Kimbell, 2011, 2012; Kimbell & Street, 2009). By focusing on practitioners, we can investigate how actors (designers and/or strategists in this context) interact when working on strategy. Hence, we adopt a micro-perspective to investigate what occurs between strategy and design practitioners at individual levels.

Idea Translation

We use translation as a key sensitising concept (Charmaz, 2014), which we incorporate into the interpretation of our findings as we enhance theoretical sensitivity to the data in this study. Translation highlights the variance in how new ideas and concepts enter existing paradigms. As Knight et al. (2020, p. 33) point out, “the challenges of bringing new ways of thinking into organisations are substantial...For managers, these challenges arise from the way in which knowledge is created and translated with organisations and into day-to-day strategy making”.

The flow of new ideas, like design practices, into new contexts involves a complex interplay between actors (Czarniawska & Joerges, 1996). Ideas are communicated using various methods and tools and become edited and adapted to suit contexts and the actors (Wedlin & Sahlin, 2017). Practitioners’ experiences and roles account for one dimension of this translation (van Grinsven et al., 2020). Where and how they operate are other factors (Nielsen et al., 2022). Together, these dimensions tell a more robust story about reshaping existing practices through new ones.

Our use of the translation perspective focuses on a micro-perspective: the actors (practitioners) in their contexts (Czarniawska & Joerges, 1996; Waldorff & Madsen, 2023). This offers us insights into the varied uses of design (incl. design thinking) and the implications of practitioner contexts and agencies. We found explanatory power in Wedlin and Sahlin’s (2017) ‘ecologies of translation’, allowing us to elevate the theoretical significance of our findings in the advanced stages of our analysis (Birks & Mills, 2022, p. 203). Ecologies of translation explain the mechanisms that drive variation of translation and the importance of well-translated design practices into strategy.

Methodology

Research Design

We use a Grounded Theory approach (Birks & Mills, 2015; Charmaz, 2014; Corbin & Strauss, 2015). It is appropriate to explore from the ground how emerging practices have developed and in what direction they may be moving because design and strategy research is developing, but there is not yet an integrated perspective of strategic design and strategy with design. Our approach is inductive and abductive to generate theoretical insights grounded in the data, as originally described by Glaser and Strauss (1967) and further developed elsewhere (Birks & Mills, 2022; Charmaz, 2014; Corbin & Strauss, 2015). We assume a constructionist paradigm, whereby meaning is constructed and generated alongside research participants (Charmaz, 2014, 2017; Ward et al., 2015).

Our methods include exploring accounts of practice through rich descriptions of practice as they relate to individuals' histories and career development at the intersection of design and strategy (Rouleau, 2010). This study employs interviews to explain accounts of practice across contexts and practitioner types. This allowed us to understand the distributed nature of practices as an emerging field rather than focusing on a specific account of one or a few cases, which would only provide a situated account of design in strategy (Seidl & Whittington, 2014).

We sought to capture the narratives of practices shared by our participants to understand how they have used design in strategy and how this has developed over time (Rouleau, 2010). This aspect of our research was vital as we understand design in strategy as an emerging phenomenon combining ideas of both design and strategy. Therefore, in addition to understanding the roles of design in strategy, we also sought to understand the nuances of *how* strategists or strategic designers bring their knowledge into their work (Rouleau & Cloutier, 2022). This is important because we know that each practice orientation has specific traditions (Pugh & Bourgeois, 2011; Rylander, 2009; Van Den Bosch et al., 2005). Throughout the interviews, practitioners shared stories of foundational career and work experiences and ways of integrating design into strategy. These formed reflections about experiences from current and past work environments. Narratives of practice build on biographical approaches (Bertaux, 1981) to understand

‘taken for granted’ aspects of practice relating to a person’s (developing) knowledge, approaches to work, and the related interactions between these (Rouleau, 2010, p. 462). Our method draws on practitioner reflections about key moments of change and the contributing factors, thus providing rich data.

Data Generation

Our data analysis is based on 50 semi-structured interviews. We spoke with 18 strategists and 32 strategic designers. Strategists represent traditional management approaches to strategy. Our sample includes strategists, general managers, executives, analysts, consultants, decision-makers, scholars, designers, managers, and consultants. These participants have roles that imply they use design approaches to shape strategy. Many of these participants began their careers in design. Others developed their skills through design thinking and working closely with designers. Interview participants were located across the following geographies: Australia, Finland, Denmark, Netherlands, United States of America, Canada, and Norway. The geographical spread reflects the research networks that have been sampled, for example, 42 of 50 participants are located in Australia, which demonstrates the local connection. However, in Australia and elsewhere, the spread also represents where design is understood and valued in relation to strategy. Australia has a strong history of exploration with design into strategy and organisations, with leading institutions such as Meld, TACSCI, Portable, Second Road, Future Friendly, the Australian Taxation Office, the Design Innovation Research Centre and Designing Out Crime represent a field that has developed strong capabilities. In turn, the strong interest and opportunities within the Australian context has created a highly experienced community of practice, which explains why many participants from this locale have been suitable for participation in this study. Second, it should be noted that careerwise, not all participants have remained in one geography over time. Therefore, the geographies are not as influential in the sample as the level of experience and exposure to design overall. Further, given that we sought to understand the general contextual conditions that support, hinder or influence practices, the study remained open to what emerged as a significant influence on practice of strategy. We also conducted two focus groups with participants from strategic design firms located in Australia.

We used theoretical sampling to recruit participants (Birks & Mills, 2022) and a purposive sample approach (Patton, 2002) to commence the study, inviting participants from the lead researcher's network. We then used snowballing (Flick, 2009) as participants felt compelled to share their contacts. As the study progressed, we found that strategic designers provided rich accounts of the integration between design and strategy as they were more commonly required to work with strategists. In contrast, strategists' accounts were limited to their understanding of design thinking frameworks. They, therefore, provided thinner accounts of how practices were merging into strategy across the various roles that we could see emerging. Consequently, our sample is weighted towards strategic designers.

We conducted ethical research following the requirements of the University of Technology Sydney Ethics Committee, which are set out in the National Statement on Ethical Conduct in Human Research established by the National Health and Medical Research Council. The UTS Ethics Committee gave its ethics approval for this study. All research participants were given an invitation to participate and a Participant Information Sheet, containing a consent form. All research participants consented to participate in the study by a returned signed consent form or through a formal verbal consent process. See Appendix 7 for the specific forms and procedures followed.

Data Analysis

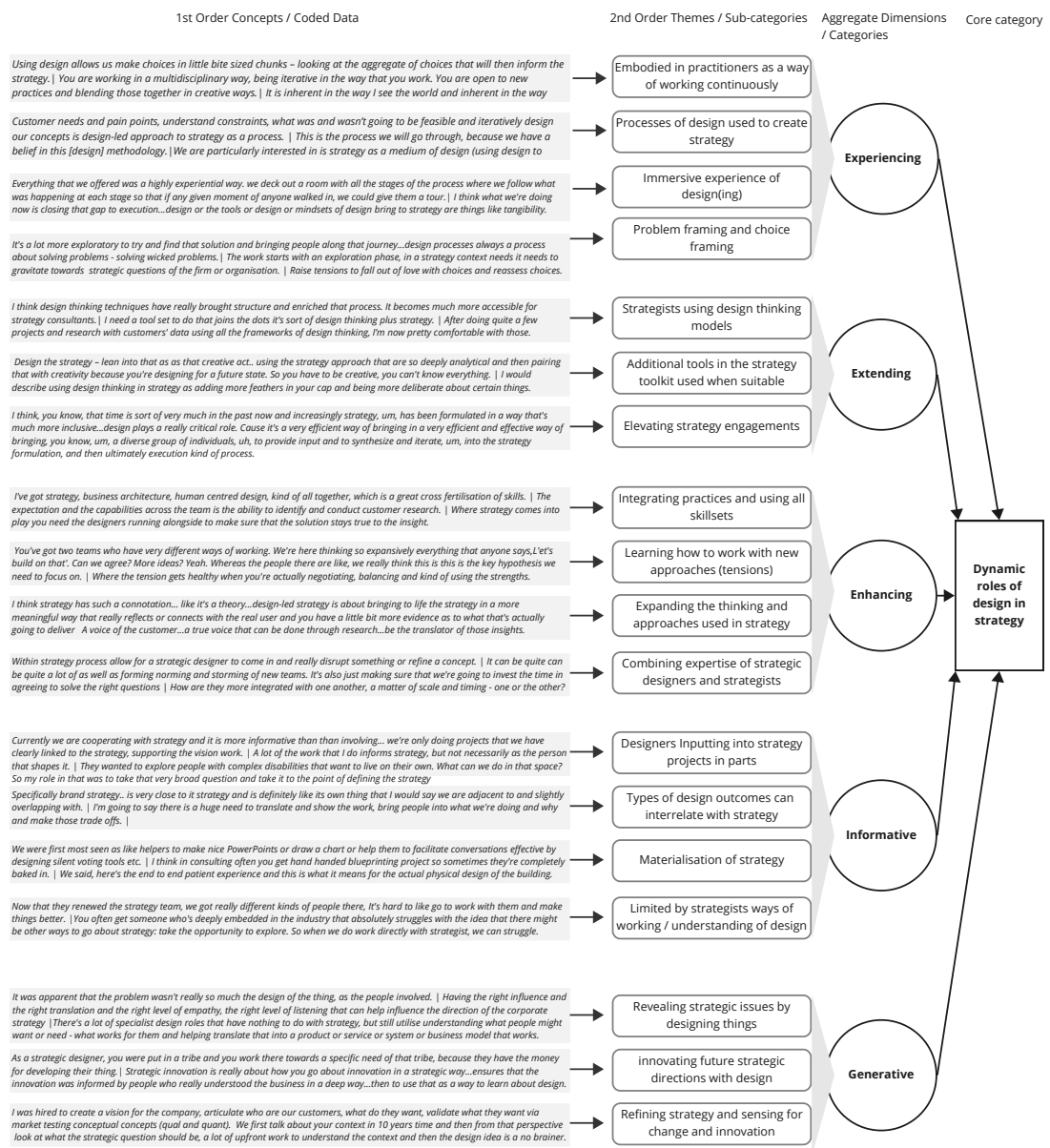
We used NVivo and other digital tools to support initial coding, synthesis, and tentative codes, moving towards advanced coding and theoretical integration (Birks & Mills, 2022, p. 174). We commenced open coding, utilising four interviews to 'break open' the data and shape initial concepts and categories from which to continue coding (Birks & Mills, 2022). We identified over 790 codes capturing how strategists and strategic designers described their actions in strategy work (Saldaña, 2021). We developed 82 thematic groupings and further integrated codes into five categories and 18 related sub-categories. Interview notes and reflexive memos were recorded and reflected upon during the interviews. These memos form part of the analysis, support sensemaking activities, and check for personal bias. Over 250 memos were developed during the study, which provided formative descriptions and categorisation of data, including the first attempts at creating a storyline of what was emerging in the data (Birks & Mills, 2022).

The advanced stages of analysis included working across memos, NVivo codes, and analytic tables, which helped clarify descriptions of variation and supported the theoretical integration of final category dimensions (Birks & Mills, 2022; Cloutier & Ravasi, 2021).

We utilised the Gioia approach to visually categorise concepts, using first-order and second-order themes to show overarching concepts as aggregate dimensions of practice (Gioia et al., 2013; Magnani & Gioia, 2023) (see: Figure 1 and Appendix 4, Table 12). This approach helps us visually demonstrate how the analysis is grounded in the data, follows analytical rigour, and shows how the NVivo codes inform the concepts that explain core phenomena. The roles capture how design is used in strategy and its function in the process. We connect the roles to practitioner types and contexts to support our explanation of variance in how design is translated into strategy.

Figure 8

Data Structure - The Dynamic Roles of Design in Strategy

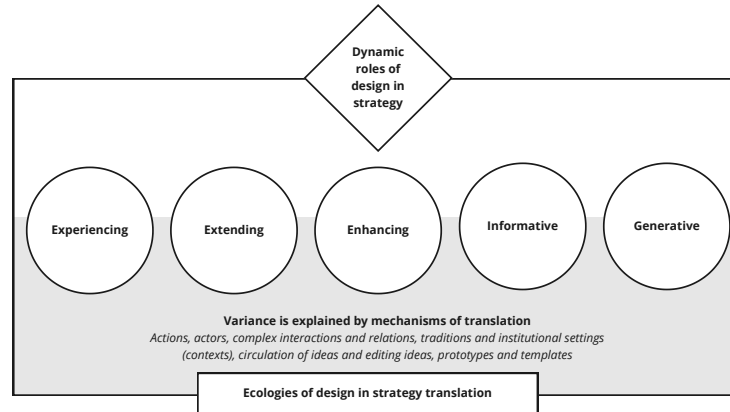


Advanced Coding and Theoretical Integration

We sought “a comprehensive explanation of a process or scheme apparent about a particular phenomenon” (Birks & Mills, 2015, p. 12) to develop a grounded theory. Advanced coding creates a theoretical storyline that can be further enriched by integrating existing theories to provide explanatory power to the advanced analysis.

Figure 9

Ecologies of Design in Strategy Translation



To facilitate the advanced analysis stage, we drew on the translation literature and identified concepts to explain the phenomena further. We compared our grounded theory with other scholarly evidence to expand the notion of design in the strategy field (Charmaz, 2006). We also reviewed the sub-codes we had developed, which did not strictly inform the roles of design in strategy. Recursively, we looked at these codes considering the translation literature and identified how the various roles of design in strategy emerge. The data variation we recognised in our study mirrored the ecologies of translation theory proposed by Wedlin and Sahlin (2017). We extracted theoretical codes from this work and compared these to our existing data and coding that has not yet been integrated into our developing theory.

The analysis gave us confidence that we could explain the significance of the phenomena through an *ecology of translation* lens. Thus, we integrated these concepts as they related to the codes identified in our developing theory to explain the significance of the roles (Table 7). While undertaking this advanced analysis, codes remained grounded in the data. Concepts from the extant literature were not forced but helped us explain what was already visibly consequential to the roles appearing in the way they did.

Table 6

Comparison and Integration of Theoretical Codes From Translation Studies Into Existing Data Categories (adapted from Wedlin & Sahlin, 2017)

Ecologies of Translation		Related Analysis Themes
Concepts integrated into advanced analysis	Consequence in translation of ideas	Sub-categories developed through coding
Actions	How ideas are applied in practice and in which way they facilitate translation – flows of translation	• Origins of practice • Dispositions • Perception • Models and tools
Actors	Participants of translation and actors who influence how ideas are translated (carriers and mediators of translation)	• Narratives of practitioner's practices and ways of working • Client (conditions) • Variation of background and experience • Being influences or exposed to design • Strategists' mindset about design
Complex interactions and relations	Ideas are exchanged and taken into action between practitioners within a context. Interactions and relations contribute to how an idea is translated through exchanges in practice.	• Inhibitors and detractors of design in strategy • Personal interest and motivation • Formulating strategy with others • Blending approaches together • Tensions • Articulating differences between strategy and design
Traditions and institutional settings (context)	Organisations have established ways of doing things and cultures of practice, new ideas enter established ways of working, therefore how they are carried and received in setting determines how they are translated	• Contextual conditions/conditions for design • Struggling to bring design into the organisational environment (silent design) • Valuing (aspects of) design • Expected ways of working
Circulation of ideas and editing ideas	Origins of ideas, how they are communicated, shared, edited and changed/adapted. Carriers of practice.	• Industry demand for design • Design thinking • Methods, tools and frameworks • Evolving a new kind of practice
Prototypes and templates	Describe how ideas are communicated and to facilitate use, how they are disseminated and adapted in local settings	• Design thinking models • Methods, tools and frameworks • Project plans and engagements with clients

Findings

Our findings are presented in two stages. We first introduce the *roles of design in strategy* before presenting *ecologies of design in strategy translation*. For the latter, we provide a more comprehensive overview of the theoretical foundations of translation studies before presenting our integrated theory in its advanced form. With this approach, we demonstrate that our theoretical insights are grounded in the data, and the subsequent theoretical integration not only enhances the explanation of the phenomena but remains data-driven, evolving through a progressive analytical process (Birks & Mills, 2022; Charmaz, 2006).

We use “strategic designer” and “designer in strategy spaces” interchangeably for clarity in the analysis.

Five Roles of Design

Our study uncovered five roles of design practices in strategy: Experiencing, Extending, Enhancing, Informative, and Generative. The roles demonstrate how design practices are used in strategy work in multiple ways and highlight that both strategic designers and strategists influence how design can change strategy practice. We conceptualise that the co-construction of translation occurs as a dynamic interplay between practitioner types within these strategy contexts, generating normative expectations of good/valid strategy practice. The dynamic roles of design in strategy informs how well design practices are integrated and sustained in strategy practices.

Table 7

The Roles of Design for Strategy – Multi-Directional Placements of Design Practices and Practitioners

	Experiencing	Extending	Enhancing	Informative	Generative
Roles of design for strategy	Strategy projects are a medium for design – embodied and applied through practitioners and practice (design being)	Strategy projects incorporate design approaches through design thinking models and frameworks and are used to varying degrees in strategy projects (skill or tool)	Strategy projects integrate strategic design practitioners as team members on strategy projects alongside strategists (blending skills)	Strategy projects are informed by design inputs at specific moments of the strategy project to inform the strategy formulation (data and material inputs)	Strategy projects utilise strategic insights that arise through design work that sense strategic shifts, reveal opportunities and experiment with strategic options (emergent insights)
Accounts of practice	Design practice is imbued and embodied by practitioners as a dominant approach towards strategy formulation, which may also then involve the translation of strategy practices and frameworks back into design approaches.	Design practices are brought into strategy as a set of tools that can be leveraged in strategy work, but optional depending on project conditions and client/stakeholder contexts, usually discussed as the practice of design thinking.	Infusion or integration of design practice into strategy practice. Design practice is integrated into strategy practice with intention to realise strategy projects in concert with one another from start to finish.	Selective and directional integration of design practice in parts of strategy practice. Strategic design practitioners lead portions of work drawing on design practices, but then integrated back into strategy.	Design capabilities informing strategy through the process of designing of ‘things’ or innovation activities. Design practitioners develop strategic insights as a result of design work.
Example accounts	<i>For me design is in all of our work, like it's just thoughtfully, making things—whether that be, preparing for a conversation, designing your programme of work. Designing your documents, your workshop design, your comms around your workshops, like all of that stuff is designed. (SD_23)</i>	<i>The way I consider design in my work is for me, adding feathers in my cap and being more deliberate about certain things, because designers approach problem-solving in a very different fashion. Some things are better solved, using design and others are more analytical and the two can co-exists quite well and be amplifying. (S_1)</i>	<i>We have the strategists, you know, where strategy comes into play, and you need the designers running alongside to make sure that the solution stays true to the insight (and that's where the visualisation and the sketching of solutions is important, as well) and mapping out this customer experience and having that clear vision. (37_SD)</i>	<i>Some teams are using designers to form their reasons and do that kind of "where do we want to go?" Sort of work, but that doesn't happen equally, everywhere. And the amount of how much expertise they use from the designers that are out there varies a lot. (SD_50)</i>	<i>I was brought in to work on a what was framed as a design project that has kind of gone off the rails. And in kind of working through that with the team and looking at what was actually going on, it was apparent that the problem wasn't really so much the design, as the people involved and the leadership. (SD_44)</i>

Experiencing

The role of experiencing brings design into the heart of the strategy experience. It is embedded in how a strategy project is planned and undertaken from start to finish. The experiencing role describes how design practitioners see strategy as the outcome and subject of a design challenge. In other words, strategic designers undertake a strategy project as if it were a design project and the ‘thing’ being designed is a strategy. Therefore, strategy becomes a ‘medium’ (or channel) for designing where: *“you can productively use the tools of design and the mindsets of design to create, build, test, and scale those choices, and you are better off using the tools of design than not in the creation of a forward-looking strategy.”* (FG1_4)

These ‘strategy design projects’ follow design approaches rather than traditional strategy practices. Hence, the role of design is embedded in the process and driving the experience of a strategy project: *“When clients engage with us, we’re like, well, you signed the contract; this is the process we will go through.”* (FG2_3) For these practitioners, design is a way of working, embodied through practice as an individual experience and approach to work.

When I came into innovation consultancy, I was fascinated by working with people in organisations who were new to the double diamond. I didn’t know any different because I’d only ever been a designer... I would always start out with scoping the landscape: who are the stakeholders? How has this been done before?... I can do the divergent ‘look, I think these are all the questions and mindset inquiries we need’. (SD_48)

The *experiencing* role is not just undertaken by one person. Design teams aim to gather diverse inputs and foster collaboration by integrating varied knowledge and engaging in collective sense-making through group synthesis. *“Design researchers are critical in helping us understand our context and in testing our ideas. Visual communication designers are involved in helping us synthesise and generate ideas, but also in telling stories about them.”* (S_6) Design traditions guide what and how work is undertaken in strategy. *“Design is in all of our work; it’s thoughtfully making things...preparing for a conversation, designing your programme of work. Designing your documents, your workshop design, your comms around your workshops, all of that stuff is all designed.”* (SD_23). Designing, therefore, drives the actions in strategy work as an ethos and general style of practice.

Experiencing also emphasises the generation of strategy through design approaches as a creative act, which includes undertaking research about relevant stakeholder needs, prototyping and testing, and synthesising diverse insights to create new visions and pathways for strategy. “*Design [in strategy] is being free to make leaps and synthesise, and that's key to amplifying the ability to go places that you might not have gotten to or to go a bit faster... It's an accelerant, right?*” (SD_1).

The approaches used in *experiencing* elevate principles of design practice: being exploratory, testing assumptions, asking critical questions, and pushing the thinking towards future thinking to challenge and innovate strategy.

The reason that design approach is distinct is there are many organisations that treat strategy as a purely analytical exercise where you take the last strategy and you say, what did we do? What did we not do? How do we update this strategy? And the strategy isn't choiceful...it's a list of initiatives or a budget or whatever that might be. That's not what we do. We're really thinking about choices for future fitness – choices that are about the fundamental future of the business, the category, the function, the brand, whatever it is that we're working on. (FG1_4)

Experiencing is a design practice that drives innovative, inclusive and future-oriented approaches to strategy by using carefully designed experiences and artefacts to engage participants in meaningful discussion about strategy.

Extending

The *extending* role of design is about utilising design approaches as a method or tool in a strategy project. This involves, for example, applying design thinking and related methods for strategic analysis. We find that people performing this role have previously been exposed to designers' ways of working and have studied design thinking, often via professional training. Here, people view design as a method involving tools they can optionally employ in their strategy work. Design tools are seen as an addition to, rather than replacing, traditional strategy tools and methods, and they have become more commonplace in strategy. “[*In strategy today,*] *I see design used over and over again and [it] almost becomes embedded. It's almost not even talked about ... it really draws on the tenants of design thinking.*” (S_17)

The extending role of design is about using design thinking as an alternative style of strategy-making in specific contexts. For example, design thinking is often drawn upon when a consultative approach is needed as it emphasises stakeholder engagement and dialogue between board members, employees, and other external stakeholders, including customers. However, it may not be seen as suitable for an economically driven, cost-cutting, confidential, (so therefore a) top-down strategy.

Where you genuinely have scope to create something...clients are genuinely open to you uncovering new insights, thinking of new product ideas, and you'll have the rope to go and explore them. It's really important to do that because if you don't diverge enough and leave enough space for divergent thinking, you just come up with really derivative results. (S_12)

We found the extending role to be present when people saw the need for “exploratory, novel, and customer-centred” considerations to provide more robust sets of choices or strategic ‘optionality’. “There’s a lot of this unforeseen stuff happening. I see more questions turning into: ‘well, we know that we can't know the future, so what's the strategy that will give us the greatest flexibility and optionality in an uncertain future?’” (S_12)

However, participants shared that designers have a perception problem because some people perceive design approaches as ‘soft’ or not robust enough. Study participants described how some of their clients do not have the patience or propensity to tolerate design as an alternative approach to strategy and, therefore, do not pursue a design approach.

I think it would be difficult to deliver a strategy solely with design skills...because I don't think that commercial, financial acumen piece is strong enough to connect the design to an outcome that the Board would recognise...in traditional strategy quarters, and, therefore, may not live up to expectations. (S_25)

Hence, design tends to be viewed as optional in the extending role. It is seen as an extension of the existing tools and methods that strategists draw upon and use to generate specific inputs or outcomes of their strategy work. The integration of design

into strategy for strategists is like: “*adding feathers in your cap, or arrows in your quiver and being more deliberate about certain things.*” (S_1)

When design is used in strategy in this format, it is appreciated as a useful way to stretch conventional strategy methods to discover surprising and innovative strategic alternatives. *Extending* practitioners use design thinking methods and tools to achieve specific strategic outcomes —without necessarily involving professional designers.

Enhancing

Enhancing suggests a collaborative fusion of design and strategy practices that creates an opportunity to reimagine strategy practices. The *enhancing* role of design in strategy describes the integrated practice of strategists and strategic designers, where their expertise and specialist standing in their respective fields are equally valued. Working alongside each other, they do strategy work, sharing and discussing progress, synthesising and sense-making of data to understand its significance and accordingly generate strategic options.

I [strategic designer] would be working in parallel with your traditional corporate strategists. The corporate strategists are really trying to prove that there is a business model that will meet the investment criteria set by the client and the payoff period set by the client. (SD_46)

In an enhancing role, strategic designers and strategists are a complementary pair. Together, they combine diverse expertise to integrate significant stakeholder insights, idea generation, and strategy approaches that push the thinking of clients and teams into more imaginative and prospective spaces. In an enhancing role, designers and strategists play their part; each enhances the work by combining skills, capabilities, and collaboration. They have distinct strengths and hit their stride when sense-making, negotiating meaning, or generating strategic directions. “*...you need the designers running alongside [the strategists] to make sure that the solution stays true to the insight.*” (SD_37)

However, in this role, we also found significant tensions among practitioners as they attempted to integrate new approaches by combining their existing practices. These

tensions detracted from productive strategy work and required mutual and additional negotiation.

Most of the strategy team are trained by management consultants, so they nearly all use a hypothesis-driven approach. The rub between that team and the design teams is that the design teams have a longer lead time to output that their strategy team would recognise as something they could use and grab on to. This is because there's more time exploring and collecting data and looking for patterns and bringing that together. So that can be a bit of a frustration. (S_25)

Participants in our study reported that they draw upon and combine various aspects of their strategy practices (design thinking, strategy practice, design practices) to optimise their efforts for the project at hand.

They'll come with their numbers, we'll come with our point of view, and then all run in parallel... we use a form of ideation, then they need to come together and negotiate a proposition that's going to fit, and then you test it. (SD_46).

This includes consideration of the clients' or strategy owners' needs and the requirement to accommodate design approaches. When practices are successfully integrated, there is openness and curiosity to learn about each other's ways of working.

[The strategic designer] brought this really big, robust kind of design toolkit, which was great and they're very generous in kind of helping us understand their world...what they were doing in terms of user experience, putting on user interviews, what it meant to prototype, what it meant to design a system. So that really helped me ... but at least I brought a design attitude, not that kind of analytical resistance or analytical preference for analysis which a classic kind of scientific strategy person will bring. (S_39)

Enhancing is a practice that integrates design approaches with strategy, involving strategic designers and strategists to leverage approaches to elevating stakeholder voices, material artefacts, and designerly forms of reasoning.

Informative

The *informative* role is about design as a discreet activity where design practitioners are not part of the strategy team but contribute distinct work portions to inform strategy development. This work usually includes providing insights about customer needs and changing customer sentiments, which is used to identify potential market opportunities. In an informative capacity, design approaches simply help shape parts of a strategy program rather than being a fully integrated practice. The designer's role is to engage in strategy work with a limited scope to inform the overall strategy formulation as an input.

Some teams are using designers to form their reasons and do that kind of 'where do we want to go?' sort of work, but that doesn't happen equally, everywhere. And the amount of how much expertise they use from the designers that are out there varies a lot. (SD_50)

Designers are valued for bringing specific skillsets:

The type of reason you would bring in a strategic designer is: one to disrupt the line of thinking either within a team or within a client or within an industry, through a big ideation workshop, where you bring in trends, maybe some futurists, etc. where you're really trying to challenge the status quo and take them through a process of doing that. (SD_40).

Designers contribute to the material aspects of strategy work. This includes creating design artefacts, designing and conducting workshops, and developing the visual communication design of strategy reports. This involves “*being able to visualise the solution and the end, like what would be the customer experience and visualising how people would interact with the service. It just delivers such rapid alignment*” (SD_37).

Designers are also valued for their ability to undertake customer research and stakeholder engagement and produce research insights that can contribute to strategy. They bring into strategy “*...that human perspective, that 'empathy' that we're able to bring in as designers to make sure that whatever we are putting forth as a strategy does reflect the needs of the people that we're catering for*” (SD_47).

These contributions support strategic work unidirectionally because they are provided as a service to the core strategy team. They support strategy work upon request, and a strategist may use only some of the information provided. Similarly, a strategic designer who provides information cannot influence how specific insights are used. Hence, strategic designers have little agency to influence strategy in this role.

Our strategy team always consult us whenever any kind of change happens to department strategy. They send it out to all the relevant teams and say to provide any feedback you may have. Usually, the feedback that we provide is pretty minor. And it's very hard to get them to actually change the levers that they're using for the strategy. (SD_47)

Overall, we find that the informative role of design can bring value to strategy work, especially through the artefacts and experiences that strategic designers create and give to strategy-making. Yet, strategists integrate those aspects into strategy without more profound collaborative exchanges and further designers' input.

Informative practice brings nuanced insights from design research, design experiences, and materials artefacts provided as input into strategy work to shift the thinking towards new opportunities and possibilities.

Generative

The *generative* role of design in strategy is about recognising and utilising insights and meanings produced through design work and having strategic significance for organisations. With this role, we describe the potential of more traditional applications of design practice, where strategic designers work independently from strategy teams to generate strategic insights. For example, design practitioners may reveal relevant strategic questions and challenges through product, service, system, or environment design. Designers discover strategically relevant insights as a result of design research and idea development with important stakeholders like employees, customers, and other key players in the system/environment they are designing. The insights revealed in these processes become critical information to guide an organisation's implementation of a new design but also may inform other opportunities or issues that have not yet been understood.

Normally what you tend to do as a designer is you're actually shifting the ideas and you're shifting the brief. But then you have to try and defend that based on the outcome of your process towards the context that doesn't quite fit. (SD_31)

Strategic designers also generate insights into innovation projects that attend to organisational risk or future aspirations. In this case, strategic designers work on portfolios of problems to find useful opportunities that an organisation proactively undertakes to improve performance and manage risk. For example: “*The work of the strategic innovation team was to design what we call strategic options, which effectively were design projects that used a strategic risk as the starting point in the design process*” (SD_44).

Designers also support strategy transformation and implementation programs to sense and attend to aspects of the strategy that do not perform as expected.

As we go through and implement some of the strategy pieces and transform the business, there will be things that we uncover that we realise are a bit unresolved from a strategy perspective, so then might come back and then do a deeper dive on a customer experience or a channel proposition that needs more thinking before we can we can truly design its target state. (S_25)

In this instance, designers undertake their work to redesign and refine aspects of the strategy to see it ‘close the strategy loop’ and refine strategic directions as required.

The *generative* role of design is distinct from the earlier ones because design creates a value proposition for products and services or solves specific strategic challenges rather than informing strategy development overall. The insights revealed through these activities may reveal important strategic opportunities. We call this *generative* because the designing work tends to sense change or strategic significance at the edges of what is occurring, providing the opportunity to change or enabling businesses’ overall performance.

In this role, the strategic designer’s job is to advocate for the needs and issues in the design work. Designers then have a job to communicate the relevancy of insights arising through design.

I had so much evidence in this qualitative study that no one really wanted to subscribe to our services and pay us for those services, that was it. And so, while this COO was telling me here are the levers we need to pull we need to grow, I have umpteen ethnographies that we had done –that's where we were able to influence the corporate strategy. (SD_32)

At the same time, managers and/or strategists must be prepared to take on broad insights, including contradictory and critical ones, for them to be actionable. Therefore, strategists become crucial to enabling realignment and change through design insights.

Generative design practices harness the value of design traditions like testing, prototyping, and experimentation. Involving strategic designers in this process enhances an organisation's capacity to adapt and innovate amid risk and change, shifting the strategy concept from a fixed timeframe to a continuous, evolving activity. The *Generative* role is an opportunistic, forward-looking, and assumption-busting design practice that asserts possible strategic directions and leverages design activities to influence strategy and transformation.

Overall, design roles, as identified here, hinge on strategic designers being respected and valued in a strategic capacity that can bring value to ongoing strategy activities and create strategic advantage.

Integrating Translation Ecologies for Advanced Analysis

Our data shows that design practices are adopted dynamically across all five roles. As participants reflected on contextual and agential issues between actors and within contexts and various settings, we found that actors' practices affect how ideas are embedded through strategy work and ultimately determine if or how design is used in strategy. This is significant because our research shows that design contributes to and reforms strategy work in different ways. This has consequences for understanding a design practitioner's role(s) and contextual conditions contributing to strategy work. Moreover, the conditions within different contexts shape how design practitioners collaborate and what influences them. To better understand this variability, we turn to translation studies, which offer a valuable theoretical lens for further analysis and deeper insights into the role of design in strategy.

Translation studies deal with how organisations adopt ideas for improvement. Translation research looks to understand how actors participate in translation, how translations are materialised, and the processes that support translation (Czarniawska & Joerges, 1996). ‘Scandinavian Institutionalism’ provides a central theme of translation research as a perspective that challenges the tradition of neo-institutional theory by focusing on agents/participants and how they drive variation within organisational contexts (Czarniawska & Joerges, 1996; Røvik, 1996; Sahlin-Andersson, 1996; van Grinsven et al., 2016). This work has been developed to inform an understanding of broader trends (and fads) in contemporary management discourses and how those apply to specific organisational issues or agendas (Pollach, 2021; Wedlin & Sahlin, 2017). With a growing interest in how management ideas are translated into organisational settings and the mechanisms that enable translation (Spyridonidis et al., 2016; Sturdy, 2004; van Grinsven et al., 2016), management scholars have started adopting translation perspectives (Mueller & Carter, 2005; Özen & Berkman, 2007; van Grinsven et al., 2020; Westney & Piekkari, 2020).

Van Grinsven, Heusinkveld, and Cornelissen (2016) summarise the key approaches for translation studies as forming around the ‘sources’ and ‘objects’ of variation through translation, which brings focus to how ideas are embedded and enabled for strategising purposes (for actor’s use). They propose that future research would benefit from considering these broad categories of translation in relation to one another rather than remaining siloed or disconnected. This is supported by Wedlin and Sahlin (2017), who propose that translation occurs between actors and is influenced by broader contextual and relational forces. Their theoretical framework suggests a need to capture the contributors that lead to translation in specific settings as “*sets* of dynamic and mutually influencing processes” (p.103). To capture the dynamic nature of translations, they propose that translation needs to be conceived as occurring within ‘translation ecologies’ that typify the specific *sets* of conditions that lead to translation.

As our analysis progressed, we established that integrating design into a strategy can be interpreted as a translation experience (Pollach, 2021). We argue that practitioners’ developing approaches to using design in strategy strongly connect with Wedlin and Sahlin’s (2017) work on translation. The five dynamic roles demonstrate that “individual ideas do not diffuse in a vacuum but are actively transferred and translated

in a context of other ideas, actors, traditions and institutions” and can be understood as “sets of dynamic and mutually influencing processes” (p.103).

In the following, we outline an ecology perspective of design in strategy translation and present mechanisms that contribute to the dynamic interplay of design translation into strategy work. Specifically, we draw on the mechanisms contributing to the dynamic activities occurring within translation ecologies: 1) *Actions* enabled through practitioners’ perceptions and the objects used to support translation; 2) *Actors* (practitioners, mediators, or enablers) exposed to new ideas and who become translators of ideas in practice; 3) *Complex interactions* and relations that create tensions, raise questions, and stimulate the adaptation of new ideas; 4) *Organisational settings/contexts* containing established norms and traditions from which ideas are translated; 5) *Circulation of ideas* capturing how ideas are carried across contexts and how they are edited as they are enabled through practice; and 6) *Prototypes and templates* as locally embedded versions of ideas that support their Implementation in practice.

We use the six mechanisms to analyse our data further and explain the variation between roles. As advanced theoretical codes, the mechanisms provide further insights into how design has been translated into strategy work (see Appendix 4).

An Ecology of Design in Strategy Translation

We illustrate how design is translated into a strategy to form an overall ecology of design in strategy translation. By demonstrating how translation mechanisms create distinct conditions that give rise to specific types of translations, we show how design is adopted differently while shaping strategy practice and the role of actors involved in the translation process. Additionally, these distinctions provide a framework for understanding the opportunities that emerge from diverse translation modes, the relationships between actors within these processes, the contextual factors that shape the translation of ideas, and the dynamic movement of design and strategy concepts. Ultimately, this translation enables and explains the development of new practices.

Experiencing – With Design Practices

In the experiencing role, the designer is at the centre of translation. Designers express the value of design for strategy work by experimenting with new strategy approaches to

deliver strategic insights using design approaches. Design practices merging into strategy work can be seen as a developing ‘placement’ of design (Buchanan, 1992, pp. 12–13), where designers extend their skill sets through experimentation and experience in strategy settings to resolve a strategy problem (Buchanan, 2001, 2015). Designers translate ideas from strategy into traditional design practices to ensure that the models and articulation of strategy are suited to the audience and to create transferable design ideas back into the organisation. Designers also bring the required knowledge and experience into these workspaces to support strategy work for the specific project. As Buchanan (1992) writes, “the inventiveness of the designer lies in a natural or cultivated and artful ability to return to those placements and apply them to a new situation, discovering aspects of the situation that affect the final design” (p.13). Discovering a situation and developing new directions requires designers to collaborate with stakeholders and other strategists and create teams with an ideal mix of skills. This open approach means that the strategy process is experimental, collaborative, and propelled using material objects and experiences (Stigliani & Ravasi, 2018). Within the strategy process, the ideas of both strategy and design are tailored towards the particular setting being designed for and, therefore, are not easily replicable, unlike models and frameworks typically used in strategy and strategy consulting contexts that help streamline strategy work (Pugh & Bourgeois, 2011; Van Den Bosch et al., 2005). The potential of design approaches for strategy is that they allow exploratory practices in strategy work. In contrast, traditional strategy approaches have become geared towards exploiting existing knowledge to drive efficiencies through the work (Van Den Bosch et al., 2005). Accordingly, the business model for an experiencing design role in strategy reflects this and challenges the conventional practice towards containing and economising the costs of doing strategy by exploiting existing knowledge and models of strategy. Design approaches require a more open scope of work, which means prior directions cannot be defined – further, it may involve unknown amounts of time, adding to the potential cost of the work: “... which is just hard for large organisations that really value reliability – the ability to replicate the same outcome over and over – and I think they struggle with the very nature, the iterative fluid, creative nature of great design” (S_6).

Thus, *experiencing* represents a different type of strategy engagement, an alternative to conventional strategy practices that tend to be more reliable (Martin, 2009), systemised,

and streamlined. Experiencing follows a designer's placements of their skills and experience into the strategy, creating a design 'style' (Tonkinwise, 2011) of strategy work. The idea of design is embedded because it emulates the 'origins' of design practice, and 'carriers' are designers (Wedlin & Sahlin, 2017). The articulation of strategy, in its various models, frameworks, and discourse/vernacular, is then translated back into design approaches to create an effective and productive strategy. Thus, designing strategy becomes an act of translating strategy: "The perceived attributes of an idea, the perceived characteristics of a problem and the match between them are all created, negotiated or imposed during the collective translation process" (Czarniawska & Joerges, 1996, p. 25).

Extending – With Design Thinking Models

The *extending* role of design represents the translation of design thinking as an articulation of design practice that is enabled through individual strategy practitioners, and its use is largely determined by the organisation context and the actors involved in strategy work (Dell'Era et al., 2020). In this role, design ideas have the greatest potential to be imitated and adapted to suit more traditional approaches to strategy. Thus, the value of design may become diminished as the essence of design ideas becomes rationalised or directed in smaller parts of the process. This is because the model of design (in the form of design thinking) operates outside of traditional design contexts and is devoid of design guidance and expertise, and the "time – and space-bounded features of practice tend to be excluded" (Wedlin & Sahlin, 2017, p. 109). The implication is that certain ingredients essential to good design practice may be omitted, not by choice, but due to lack of awareness and experience of what it means to work in a 'designerly way' (Cross, 2023).

Further, the local context may also inhibit its authenticity where conventional rules of strategy practice largely govern approaches to strategy. Because strategic designers are not participating in design work within this role, editing design ideas may lead to an erosion of the intended value. This is because the design ideas become imitated to suit the local setting and practice traditions such that they morph back towards more traditional rational approaches embedded within traditional strategy work. Thus, when strategists adopt design, they control the practices to suit the current setting in which they work and adopt it to suit their comfort levels with the design thinking approach.

The ideas of design, therefore, can lose their intended value. This is a challenge for strategists as design brings far more iterative and exploratory approaches, which are informed by a different style of reasoning and logic and require different cultures and approaches to work well (Carlopio, 2010; Rylander, 2009; Schön, 1994). Further, the *extending* role relies on individual strategists' curiosity, motivation, and interest towards pursuing design approaches. Design expertise is developed through local applications over time, and the degree of experience a strategist has in applying design thinking to strategy will determine how successfully it becomes integrated.

Enhancing – Through Carriers of Practice and Sharing Strategy and Design Ideas

The *enhancing* role represents a dynamic relational experience between strategic designers and strategists that invites new practices of strategy to be co-constructed through collaboration. Strategic designers and strategists overcome tensions and negotiate the best possible directions and next steps considering how their combined practices unfold. The flow of ideas is multi-directional because strategic designers are learning about the practice traditions of strategy and strategists are intimately learning about *designerly ways* (Cross, 1982, 2023; Johansson-Sköldberg et al., 2013) of thinking and working and finding ways to integrate these into strategy work.

Enhancing demonstrates an example of 'direct translation' (Westney & Piekkari, 2020, pp. 66–67), where practitioners participate in actively translating ideas. In our data, we see that the transfer of ideas is not one-directional, but rather that integration of practices occurs as practitioners share ideas from both disciplinary fields. They do so by 'editing' ideas of design and strategy as they relate to and around one another to decide the next course of action based on the developing strategy (Wedlin & Sahlin, 2017, p. 109). This approach represents a dual activity process that supports translation through action, whereby strategists and strategic designers make sense of the data and issues arising through strategy work whilst also making sense of how they can work together, integrating their various practices (Rylander Eklund et al., 2022). The translation is, therefore, co-constructed through the exchange of ideas between practitioner types.

Further, the co-construction extends to an agent's identity as their perceived professional role, specifically as a strategic designer or strategist, is challenged (van Grinsven et al., 2016, p. 889). Thus, the tensions in the field are related to what and how

to work on a strategy project and how one should work in strategy (van Grinsven et al., 2020). As we know from the diffusion of design (thinking) into organisations (Carlgren, Elmquist, et al., 2016; Carlgren & BenMahmoud-Jouini, 2021; Carr et al., 2010; Liedtka et al., 2013), much of the success leading to the translation of design ideas in management also has to do with how an organisation supports the ideas about design and permits employees to work in a certain way, thus further elevating identity work to the organisational level (van Grinsven et al., 2020).

Practitioners edit practices and ideas in co-creating strategies based on their proximity. The *enhancing* role exemplifies a unique opportunity to create new strategy practices by osmosis while undertaking strategy work with designers embedded in the work. However, we also know that when designers are no longer present in the work, “...it [design approaches in strategy] just kind of disappears” (S_2). A dominant rationalist logic will prevail, and strategists tend to resume their original approaches to strategy, which is a dimension of ‘editing’ processes (Wedlin & Sahlin, 2017) in translation studies. Therefore, the co-location of designers with strategists is a special construct that affords a rich model of ‘direct translation’ promising to bring the best of both disciplines in co-constructing new strategy-design-infused practices despite the identity and relational issues that play out (van Grinsven et al., 2020; Westney & Piekkari, 2020).

Informative – With Strategic Insights Sought by Strategists

In the *informative* role of design, we find that a strategist’s awareness of designers determines if and how they are included in the work (van Grinsven et al., 2020). Yet, as we know from previous research, there is no common understanding of what design is and how it works, which extends to how it is discussed (Johansson-Sköldberg et al., 2013; Liedtka et al., 2017; Micheli et al., 2018, 2019). For designers to be more readily valued, they need to learn to speak business or management concepts; for strategists or managers, it is to understand the terminology and concepts from design (Carlgren, Elmquist, et al., 2016; Carlgren & BenMahmoud-Jouini, 2021). This shared knowledge base informs what can be knowledgeable and what can be integrated into practice (Rouleau & Cloutier, 2022).

The informative role of design in strategy recognises that organisations have begun to value the strategic relevancy of design and how the activities of designers can help inform strategy work (Carr et al., 2010; de Mozota, 2006). Distinctly, strategic designers are not yet integrated into strategy teams, but when engaged in supporting strategy work, they are valued for providing strategically relevant insights and material outputs. Translating design into strategy is far more transactional in this role, whereby strategic designers provide specific insights when requested. Design is, therefore, translated and measured by the value it adds to the broader remit of the design function for the organisation. The translation of design is mainly one-directional and maintained by how well design is understood by individual practitioners and the organisation more broadly.

Generative – Through Advocacy and Connection

The *generative* role of design in strategy is centred on the materialisation of design research, which facilitates the articulation of new strategic knowledge or insight that has not been understood explicitly as a strategic concern. The design ideas in this role are translated through the artefacts produced and communicated back to organisations and strategy teams. Design is translated through the produced objects and the ‘templates or prototypes’ that capture the various design uses.

In this role, design is context-specific and hard to translate to other organisations (Wedlin & Sahlin, 2017). For example, when design has been used to support risk-based strategic innovation work, the application of design has been developed within a specific organisational context and carried across into new contexts by the strategic designers who have learned to work in this way. Thus, the strategic designer becomes critical to the idea translation through their developed experience of generative practices and by seeing an opportunity to engage with design strategically in new contexts. Generative application of design, therefore, can be very experience-based and knowledge-driven and represents different configurations and placements of design across design fields (Buchanan, 1992). Much like ideas can travel inside organisations between actors, they can travel across institutions and continents to different effects (Nielsen et al., 2022; Wedlin & Sahlin, 2017).

Translating new ideas in this role is also about managers and strategists learning that design can create value for strategy through the development of strategic directions as a product of design work. Therefore, the translation lies in how well the ideas that arise through design work are seen, understood, and utilised in strategy work. The *generative* role is the articulation of the extended placements of design into new contexts that move across different types of design traditions and boundaries (Buchanan, 1992). Strategic designers are working to produce new things to inform strategic directions or, because of their work, to find new strategic directions. Thus, the potential of the *Generative* role is, as a strategic capability, to see *and utilise* design practices to support the generation of strategic knowledge and insights about an organisation's strategic condition (Nelson & Stolterman, 2012; Stevens & Moultrie, 2011). Hence, the *generative* role represents how strategy teams can more effectively leverage the insights and gained from design activities to generate more adaptable, generative approaches to strategy as an ongoing process. This is particularly important as design practices focus on what emerges through the design process, revealing new insights along the way that generate possibilities for testing and consideration (Nelson & Stolterman, 2012). Further, designers' research approaches tend to create the opportunity to uncover strategic considerations that have not yet been understood (Hill, 2012). Therefore, design makes new insights visible, tangible, and significant for strategy.

Discussion

Implications for Strategy and Design Discourses

The roles of design in strategy presented in this paper outline five distinct 'sets' of translation ecologies, which generate new strategy practices. Each role reveals the use of a combination of design practices and how design creates new opportunities for strategy beyond strategy practice traditions. However, the mechanisms driving the adoption and translation of design in strategy reveal that various conditions enable, inhibit, or limit the use of design for strategic ends. Therefore, the *ecologies of design in strategy translation* provide a fertile concept of what design means for strategy, thus presenting opportunities to understand better the effects of each role on strategy processes and outcomes. Additionally, they prove that strategists are not the only actors involved in strategy work and that strategic designers play a more active and embedded role in strategy work than previously assumed (Calabretta & Gemser, 2017; Chung &

Kim, 2017; Dorst & Watson, 2023; Micheli et al., 2018; Micheli & Perks, 2015; Perks et al., 2005), particularly within the strategy discourse (Knight et al., 2020; Liedtka & Kaplan, 2019).

Our study shows how translating design into strategy changes strategy practices in specific ways across five key roles. Thus, in alignment with the translation literature (Czarniawska & Joerges, 1996; Wedlin & Sahlin, 2017), we find that when design practices are translated into new settings, that is, strategy, they are not simply carbon copied into play with a typical result and experience to be had. Instead, they are adapted, edited, and changed to suit the circumstances. They are brought into existence in their given form due to context and depending on the practitioner's experience in undertaking the work (Rouleau & Cloutier, 2022; Wedlin & Sahlin, 2017). Therefore, translation mechanisms explain well how the design ideas and practices come into effect as 'ecology sets' – expressing dynamic forces that shape the experience of strategy, with design practices integrated with the modalities, and with strategic design practitioners influencing and negotiating the result. There is not one 'model' that can explain the significance of design in strategy – rather, the role of design in strategy is a far more complex and dynamic experience to understand. We suggest this represents an evolution of design and strategy practice, and thus the *ecologies of design in strategy translation* can be read as typologies of design in strategy work. Our articulation acknowledges that practitioners work with design in different capacities and configurations and that strategy practices are changing.

To what extent design shapes strategy depends on how integrated and embedded design is within the strategy setting. For example, if design is embodied, strategy is undertaken as a process of design (*experiencing*). At the other end of the spectrum, when applied discretionarily, design only informs or extends strategy (*informative* and *extending*). Further, *ecologies of design in strategy translation* tell us that a design thinking perspective of strategy only represents one design application in strategy (Knight et al., 2020). This is an essential insight because our study shows that design is used in strategy in multiple ways, not only through 'design thinking' practices. This has consequences for how researchers and practitioners acknowledge designers' contributions as 'carriers' of design practices and ideas (Engwall & Sahlin-Andersson, 2002; Wedlin & Sahlin, 2017). Thus, our study contributes to research that seeks to clarify the impact of design practitioners and design practices on management (Kimbell,

2011, 2012; Kimbell & Street, 2009) and how these contribute to the transformation of strategy practices (Magistretti et al., 2021; Simeone, 2020; Simeone & D'Ippolito, 2022). Researchers must be sensitive to the translation variance when studying the contribution of design in strategy and investigating the tensions and limitations of each in specific contexts.

We suggest that the dynamic roles of design in strategy contribute to research on strategy work that considers the role of other actors (Jarzabkowski et al., 2016) and the implications when strategy is more 'open' to others participating (Belmondo & Sargis-Roussel, 2023; Seidl, von Krogh, et al., 2019; Splitter et al., 2023; Whittington et al., 2011). The study challenges conventional strategy practices (Bansal et al., 2024) and, like others, asks for the recognition of more inclusive, exploratory, collaborative, creative and visual/ material experiences in strategy (Chia & Holt, 2009; Eppler & Platts, 2009; Gustafsson, 2023; Knight et al., 2024; Mintzberg, 1987; Seidl, von Krogh, et al., 2019; Whittington et al., 2006).

Practitioner identities are intrinsically linked with the role of actors translating ideas (van Grinsven et al., 2020; Westney & Piekkari, 2020). Therefore, future studies that capture the effects of design in strategy may seek to investigate the impact of design ideas in strategy on both strategists and strategic designers (Brown, 2022; Jaussi et al., 2007; Liu & Hinds, 2012; Oliver, 2015; Sund & Le Loarne Lemaire, 2022). This is important because design and strategy have their own sets of practice traditions, which impact what they conceive as an effective practice and how open they may be to working in different ways (Belmondo & Sargis-Roussel, 2023; Whittington et al., 2011).

Our study also opens pathways to further connect and overlay design practices with strategy practices (Jevnaker, 2000; Liedtka, 2000; Simeone, 2020; Stevens & Moultrie, 2011). To do so, it is critical to understand the differences between these practices, as we have shown through our description of the five roles. Design takes a different form of knowledge work (Rylander, 2009) as an embodied experience (Rylander Eklund et al., 2022); it elevates aesthetic knowledge in problem-solving (Krippendorff, 1989; Stigliani & Ravasi, 2018) and reflective practices (Schön, 1994), reinforcing a learning mindset (Simeone & D'Ippolito, 2022). Strategic designers, therefore, exemplify a practice based on a distinct way of learning (Cross, 2023; Tonkinwise, 2011) that

models abductive reasoning (Dorst, 2015; Stompff et al., 2022) and exploratory approaches to problem-solving that lead to diverse forms of sensemaking (Harre et al., 2021; Kolko, 2010; Stigliani & Ravasi, 2012). We know that these differences can create issues for managers as rational and economic perspectives prevail in organisations (Heskett et al., 2017; Johansson-Sköldberg et al., 2013; Rylander, 2009) and strategy today (Chia & Holt, 2009; Mintzberg, 1990). Our study contributes a conceptual base that builds on the notion that design supports alternative pathways to make a strategy that is synergistic with emergent strategy discourses (Buehring & Bishop, 2020; Fixson & Rao, 2014; Simeone, 2020). Emergent strategy is conceived of as an adaptive and exploratory practice centred on responding to what arises in the course of doing strategy and is open to experiential learning and adaptation characteristics of design (Chia & Holt, 2009; MacKay et al., 2021; Mintzberg, 1979; Mintzberg & Waters, 1985).

We contribute to the developing discourse on strategic design (Auernhammer, 2024; Bouman & Simonse, 2023; Calabretta & Gemser, 2017; Dorst & Watson, 2023; Hill, 2012; Simeone, 2020; Simonse et al., 2023) by accounting for how strategic designers become embedded and involved in strategy through each role. In this study, we see strategic designers as instrumental in *experiencing*, *enhancing*, *informative*, and *generative*. Despite strategists leading the practice in the *enhancing role*, it may also be that strategic designers have contributed to developing design thinking capabilities within these strategy settings. Therefore, the five roles can be discussed by building on existing designers' roles in strategy that capture these distinctions in formative ways (Chung & Kim, 2017; Micheli et al., 2018; Stevens & Moultrie, 2011).

Translation Studies and Future Work – Conceiving Multi-directional Design and Strategy Ideas Exchange

The role of design in strategy as *ecologies of design in strategy translation* contributes to the literature on translation studies as it explains how ecologies can form across fields (Nielsen et al., 2022) – in this case, design and strategy. Specifically, our study demonstrates that the placement of design in strategy is affected by the actors and the contexts in which a strategic designer or strategist undertakes their work. We find that strategic designers have experiences in different role types, depending on the organisation's appetite for design and their proximity to strategy practice. Our study

also contributes to translation studies via five distinct ecology sets, which clarify conditions where design plays a role in strategy practice. Building on the work of Wedlin and Sahlin (2017) and others (Nielsen et al., 2022; Westney & Piekkari, 2020), our study provides evidence that ideas travel and flow in dynamic and mutually influential ways depending on context and actors. Ecologies feature different combinations and applications of an idea, further supporting the proposition that translation is better understood as ecologies of translation (Wedlin & Sahlin, 2017).

Figure 10

Multi-directional Flow of Translation Ideas – Strategy and Design

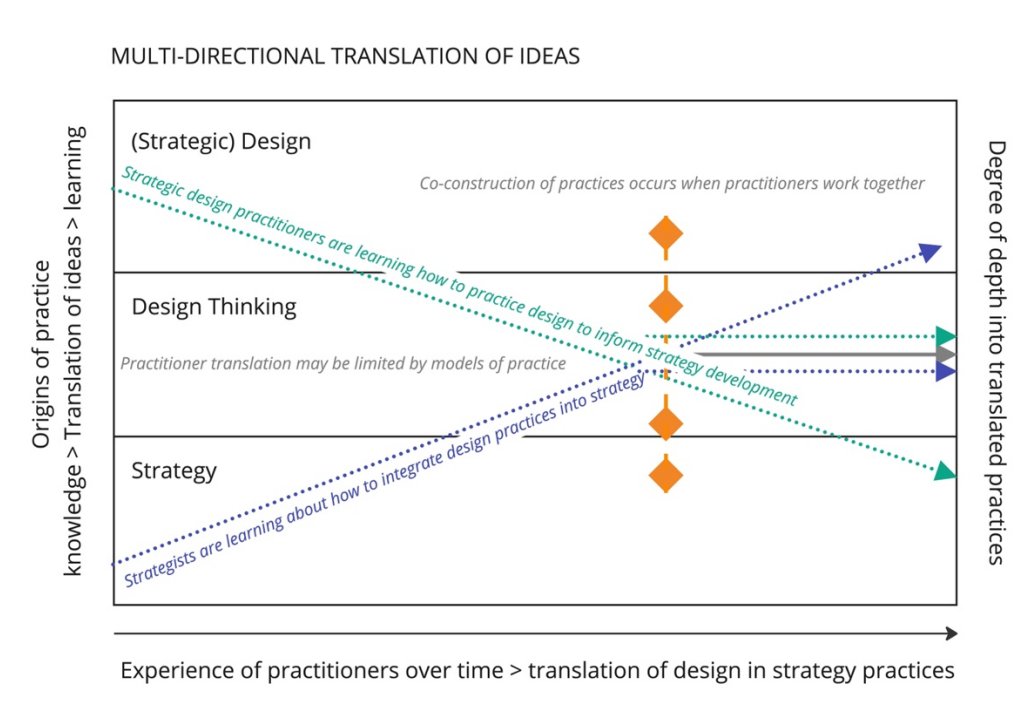


Figure 10 illustrates how ideas move multi-directionally across the disciplinary fields of design and strategy. Our study reveals that the longer a practitioner works to integrate the concepts from either field, the more integrated their practices can become. If strategists have learned about design ideas through models of design thinking, their knowledge and depth about how design may be useful in strategy is limited to the concepts of design thinking, discourse, and learning. In contrast, when strategic designers work directly with strategists (and vice-versa), there is a much deeper exchange of knowledge moving across fields.

We show how active translation is an experiment, leading to novel strategies developed over time. Therefore, design in strategy can be understood as a fluid concept that is and

will continue to evolve as practitioners (as carriers of practice) and the practices of design and strategy converge to reform integrative models of design in strategy (Westney & Piekkari, 2020). With this, our study expands the translation discourse as we find that ideas flow multi-directionally across the field, enhancing or limiting the translation of design in strategy. We build on Westney and Piekkari (2020, p. 79), who suggest that when “the materialized translations [come] directly from practice in the originating context into practice in the receiving context”, this creates a condition where “ideas can become intertwined with other ideas as they are translated and adopted, and may both build on and reinforce each other”.

In the *informative* and *generative* roles, designers’ opportunities to elevate and synergise connections with strategists are limited by how welcome they are into the conversation about strategy. However, in the *enhancing* role, the placement of designers and strategists creates a vibrant space to exchange ideas and negotiate the best course forward to integrate practices considering the strategy project. The exchange of ideas and translation happens through the joint experience. As carriers of practice, strategic designers create opportunities for strategists to learn more about how design can be used in strategy by their placement in work. This builds on Westney and Piekkari’s (2020) mention of ‘originators of practice’ involved in the work and the translation of ideas significantly affecting practice. According to Nielsen et al. (2022), when ideas are translated across fields, different models and templates are adapted in various contexts, and ideas morph “when they travel recursively among heterogeneous actors in a translation ecology” (p.25). This further explains why, in our translation ecologies, strategy has various permutations of design. Our study builds on this work, exploring the multi-directional flow of ideas through ecologies of translation (Harre et al., 2021; Westney & Piekkari, 2020). It shows how ideas can flow between agents in a dynamic and mutual exchange of ideas, enhanced when practitioner types with expertise from both dimensions come together to understand design and strategy. We suggest that further work may contribute to conceptions about how and when ideas of design contracts are developed, under what conditions, and if there are any causes for design to manifest in one role or another and what effect this has on strategy. Because strategic designers play an essential role in ‘holding’ a practice in strategy settings, we contribute to translation studies by suggesting that carriers of practice play a crucial role in

sustaining ideas in practice so that they are not eroded or diffused and lose their potency (Wedlin & Sahlin, 2017).

Ecologies of translation help explain the significance of these dynamics and the opportunities for researchers and practitioners to understand more about the impacts and potential of design for strategy. It is critical to conceive them as occurring dynamically across practice fields, which may capture broad use cases that see design as a strategic capability (Nielsen et al., 2022). This focuses on understanding the phenomena as relevant to various case types. Future research can consider how these applications transform strategy practice by integrating design roles. For example, using a translation lens, further studies may untwine the influential actors in translation and how collaborative approaches enable translation. For strategy, this has consequences on how other actors, such as designers, are understood and appreciated as significant, particularly in supporting the effective translation of design into strategy.

Practical Implications

We propose that the *ecologies of design in strategy translation* and the dynamic roles of design in strategy provide evidence for significant synergies between disciplinary fields and transdisciplinary studies and curricula. By addressing the complexities between fields, we suggest we can also unpack how they may integrate more effectively to achieve better practices and outcomes for managers and organisations (Bansal et al., 2024). Our study may inspire business schools to continue to expand design into curriculums but with sensitivity towards it being a collaborative exercise that appreciates different disciplinary actions, such as design and business students working together. Likewise, design educators may seek to expand and extend designers' business knowledge to support design placements in shaping organisations and experiences of strategy (Buchanan, 2001; Calabretta et al., 2016; Calabretta & Gemser, 2017; Grimsgaard, 2022; Lee, 2024).

The ecologies in design and strategy translation also provide managers with a blueprint for better integrating design into strategy and selecting mechanisms to incorporate and utilise design in more meaningful and experimental ways.

Conclusion

Our study aimed to understand how design and strategy practices intersect in practice and how this intersection plays out. We found that design has five distinct roles when applied to strategy. *Experiencing* expresses strategy through design processes, *extending* utilises design thinking as a method in strategy, *enhancing* represents the dynamic fusion of strategy and strategic design practitioners and shared practices, *informative* draws on designers work to elevate inputs in the strategy process, and *generative* explains how designers work produces strategic insights and opportunities not yet understood as a strategic practice.

Each of the five roles is shaped by the dynamic conditions that come together through practice and, as a result, represents ecologies of translation – ecologies of design in strategy translation. We, therefore, provide clarity on how design is integrated into strategy work, showing that this translation is multi-directional. We argue that placing strategic designers with strategists is consequential in integrating design into strategy. Our study creates a basis for future research to conceive of the relational and dynamic nature of strategy work and the multi-directional ways in which the translation of design in strategy evolves.

We also show how the translation of design practices can be imitated to such a degree that it loses the essence of why it has been introduced in the first instance. We emphasise the importance of context in translating design ideas and practices. Researchers will benefit from a broader perspective on the fluid nature of design adoption in strategy, beyond a case view and towards a broader perspective of the strategy (with design) field.

Chapter 4. Strategy-in-Action: How Design-infused Practices Inform New Approaches to Strategy Formulation

Abstract

The broad adoption of innovation methodologies has prompted designers to engage more frequently in business and management settings, influencing organisations at a strategic level and contributing to the rise of strategic design as a practice. This research explores strategic design practices and how they relate to traditional strategy practices. We interviewed 32 strategic designers and 18 strategists and facilitated two focus groups to investigate the strategists' perceptions of what design practices contribute to their work. Our analysis reveals how strategic designers undertake strategy in a different way to strategists, leading to different experiences and outcomes of strategy work. We suggest the concept of 'strategy-in-action' to capture how strategic design actions and principles transform strategy work. Strategy-in-action recognises the impact of strategic designers' work in strategy contexts, framing them as a dynamic mix of actions and principles that contribute to generating fresh insights and approaches that advance strategic thinking and strategic action. We discuss the differences between practice traditions and how they result in different approaches to strategy work. We present the contributions and implications for the work of strategic design practitioners in strategy contexts by shedding light on design actions and principles within strategic processes. Our research contributes to the growing literature that explores the extended placements of designers in management contexts and the role of design in strategy. The study expands our understanding of how strategic design practices are bringing a different style of practice into strategy work; it appreciates design traditions as embodied practices bringing a specific type of experience to strategy work, being strategy-in-action. This results in the realisation that design thinking approaches propose a different application of design to strategy. We end by discussing what strategy work might look like as a design-led experience considering strategic designers' presence.

Keywords: Design, Design Thinking, Strategic Design, Strategy

Introduction

Organisations set their future direction by formulating a strategy. Strategy work involves activating knowledge to envisage strategic possibilities and the ‘know-how’ to implement them (Clegg et al., 2022). Design is similarly concerned with imagining future possibilities by producing a designed ‘thing’; it is concerned with whom it is designed for and the context in which a design will be used (Krippendorff, 1989). Strategy and design are concerned with producing new visions with the intention for these to be used and engaged with. However, how design and strategy are undertaken in practice differ (Carlopio, 2010; Liedtka, 2000).

The concept of design within the realm of strategy has been subject to considerable debate and remains a source of contention. Mintzberg (1990), for example, who makes an early reference to design in strategy, uses it to describe a strategy ‘school’ concerned with generating control and order that separates thinking from action. In his ‘School of Design’, strategy is a top-down activity imposed on an organisation with little consideration about what would enable change. The design school of strategy builds on the notion that strategy is thought up in a manager’s mind to be implemented, giving a sense of ‘action follows thought’. A strategy must be simple and not generate variety or confusion when implemented, and it must be explicit so it can be communicated effectively. With this, Mintzberg’s (1990, p. 9) notion of design in strategy is consistent with classical notions of rationality, where thinking is separate from action, that is, action follows diagnosis and prescription.

In contrast, Schön (1983) describes design as a distinct form of professional practice that is driven by *reflection-in-action*. To design is to undertake a ‘conversation with the materials of a situation’ and move to generate ‘consequences’ that provide ‘back-talk’, which the designer reflects on when deciding what to do next. Designs are achieved through action by attending to what emerges from the situation. The aim is to understand the problem before arriving at a distinctive solution. While Mintzberg sees design as rigid and based on individual thoughts, incapable of sensing requirements and adapting to emerging situations, Schön sees it as enabled through action in a dynamic interplay of experimentation and reflection, achieved through openness and curiosity in a dialogue between minds and a situation. The juxtaposition of these accounts alone highlights the tension in the discourse on the use and value of design in strategy.

Scholars have since sought to realign design as a disciplinary field and explore its relevance in strategy work (Simeone, 2020; Stevens & Moultrie, 2011). Liedtka (2000), for example, explores design as a metaphor, explaining what it offers. She suggests design is “a different approach [for] processes that are more widely participative, more dialogue-based, issue-driven rather than calendar-driven, conflict-using rather than conflict-avoiding, all aimed at invention and learning, rather than control” (Liedtka, 2000, p. 28). Increasingly, researchers have investigated the alignment of design to theories of strategy (Carlopio, 2010; Jevnaker, 2000; Liedtka, 2020; Liedtka & Kaplan, 2019; Simeone, 2020) and strategic foresight (Buehring & Bishop, 2020; Buehring & Liedtka, 2018; Joern & Liedtka, 2018; Simeone & D’Ippolito, 2022). Design thinking as a paradigm of design practice for management (Micheli et al., 2019; Verganti et al., 2021) has helped to advance our understanding of how design is used in management contexts. As a result, much research has clarified the business opportunities through design innovation and developing design as a strategic capability (Magistretti et al., 2021; Micheli et al., 2018). Some recent studies have tied design to strategy, where design *thinking* is used as a strategic capability and a method for strategy formulation (Knight et al., 2020).

With designers increasingly finding themselves in various roles across industries, designing not only products or graphics but also interactions and systems (Buchanan, 1992, 2001), new applications of design practices have emerged (Chung & Kim, 2017; Muratovski, 2015). These new roles and applications of design have developed because organisational leaders see its value for product and service innovation and, more broadly, attending to – more strategic – organisational issues (Micheli et al., 2018). While design thinking has already been recognised as a strategic capability (Liedtka, 2020; Liedtka & Kaplan, 2019), strategic design has more recently emerged as a new field of design, specifically addressing strategy as a matter of design work (Calabretta & Gemser, 2017). Here, designers co-develop strategy with others and draw on their skills to translate design concepts and apply them to strategy work (Calabretta et al., 2016; Grimsgaard, 2022; Lam, 2017).

However, so far, only little is known about the influence designers have on traditional strategy practice and the relationships between design practices and traditional approaches to strategy (Dorst & Watson, 2023). We do not know much about the effect of design practices on strategy or what role strategic designers play in this context.

Addressing these questions is important, not only theoretically, because organisational realities at the disciplinary intersection of design and strategy expand, but also practically, because it enables strategists and students of strategy to draw upon the benefits of design for strategy-making. While design drives innovation in organisations (Liedtka et al., 2013; Micheli et al., 2018, 2019), there is a need to understand how the benefits of design expand into strategy (Magistretti et al., 2021). Integrating design and strategy approaches may afford more significant and novel opportunities for creating competitive advantages (Battistella et al., 2012; Carlopio, 2010). Strategy increasingly embraces open and participatory approaches that support transparency and inclusivity of strategic management, which is also an opportunity for it to be more creative, innovative and future-focused (Regnér, 2003; Seidl, Von Krogh, et al., 2019). Design is driven by human-centred approaches that lead to more visionary and experimental articulations of opportunities that deal with complex problems (Dorst, 2015; van der Bijl-Brouwer & Dorst, 2017), which has the potential to add a new perspective on strategy practice (Simeone & D'Ippolito, 2022). Further, the reflective and sensing activities central to design practices (Kolko, 2010; Rylander Eklund et al., 2022; Schön, 1994) may present better ways for capturing emergent strategies and translating strategic opportunities in management contexts, creating novel ways to leverage both planned and emergent strategy approaches (Mintzberg & Waters, 1985).

In this study, we take a micro-perspective to explore design practices in the context of strategy formulation. A micro-perspective focuses on individual agents' motivations, decisions, and actions and how they impact organisational phenomena (Stevens, 2013), allowing us to delve deeper into how design practices inform strategy-making (Jarzabkowski & Spee, 2009; Rouleau, 2005). Our results are based on in-depth interviews and focus groups with practitioners from strategic design agencies. We examine rich narrative accounts of strategy work to understand what design practitioners and strategic designers do that accounts for how their work approaches have changed and developed over time (Rouleau, 2010). Our study confirms that strategic designers work alongside strategists on strategy projects and that design approaches to strategy work are different. Here, we discuss the differences and highlight the opportunities for design in strategy-making. Our study indicates that strategic designers transform strategy through their actions and principles that underpin strategy making, which we describe as *strategy-in-action*. Through comparison analysis, we find

that strategy-in-action is synergistic with the theories of emergent strategy. As a result, we argue that strategy-in-action becomes an articulation of emergent strategy practice through strategic design.

Theoretical Background

Design and its Use in Strategy Work

The ongoing discussion about design as a valuable approach for managers originated from different scholarly perspectives. Design scholars have explored how design can deal with the complexity of wicked problems more appropriately (Rouleau, 2010) and arrive at more considered outcomes (Archer, 1965; Rowe, 1987). Management scholars have also argued that *designerly ways* of thinking deal better with the cognitive limitations and biases inherent in rational decision-making (Boland & Collopy, 2004; Simon, 1969). This is because managers often do not spend time understanding problems well enough to identify or invent better solutions. After all, they do not see their role as ‘designing’ but rather as ‘analysing and deciding’ (Boland & Collopy, 2004). Managers are concerned with “changing existing situations into preferred ones” (Simon, 1969, p. 129). Doing so, however, is a matter of *designing* as managers are required to bring something new into the world (Simon, 1969, p. 129). Simon points out that much of management decision-making depends on inward-focused economic modelling that only provides a limited view of what is possible (Simon, 1969, pp. 33–34). Economic analysis falls short of understanding strategic challenges well, and *design* has been proposed as a discipline that can help deal with such shortcomings.

Design Thinking

Design thinking has been popular with management for over two decades as a productive approach to innovating products and services (Micheli et al., 2019). It has created innovation for businesses (Brown & Katz, 2009; Martin, 2009) and an alternative ‘road’ for elevating the rhetoric of strategic conversations (Golsby-Smith, 2007, p. 27). Design thinking has become a codified model of design practice that demonstrates the core elements of design practice through processes, methods, tools, and mindsets that emulate designerly working to help managers learn how to design (Auernhammer & Roth, 2021; Liedtka & Ogilvie, 2011).

While design thinking has gained acceptance, reports of its application in strategic contexts are limited to successful applications in broader innovation management and transformation settings (Magistretti et al., 2021). Integrating design thinking with general management and innovation practices has been difficult for many reasons (Carlgren & BenMahmoud-Jouini, 2021). One reason is that established work cultures are built from rational logic and reasoning (Dorst, 2015; Martin, 2009). Hence, design thinking has proven problematic for organisations to cultivate as it requires a shift in individual mindset, which involves dealing with ambiguity, opportunity, diverse perspectives, risk, and change, to name a few (Schweitzer et al., 2016). However, specific design (thinking) sensibilities towards work are learned, developed, and honed through ‘studio’ cultures of design (Cross, 1982, 2023), which foster learning and experimentation (Liedtka, 2018a; Rylander Eklund et al., 2022). Sustained leadership support is needed for design thinking to develop into an effective organisational capability for strategic change and transformation (Carlgren & BenMahmoud-Jouini, 2021; Liedtka et al., 2013).

Design thinking has also been suggested as a dynamic capability that enables organisations to imagine new strategic opportunities (Liedtka, 2018a, 2020; Liedtka & Kaplan, 2019). Along similar lines, a recent study on how strategists use design thinking has found it helpful in generating and engaging with different kinds of strategy data (Knight et al., 2020). Yet, it is unclear how design practices are used in strategy contexts despite the proposal that ‘design thinking’ is suitable and being used within strategy work (Knight et al., 2020; Magistretti et al., 2021). Notwithstanding its expansion into management and strategy, there is also an ongoing debate about whether and how *design thinking* differs from its disciplinary origins in *design* (Verganti et al., 2021).

Despite the controversy over the relation of design practice to design thinking, the progression of design thinking into management has led to new roles and responsibilities for designers in management contexts (Micheli et al., 2019). New design practices have emerged that reflect an extended use of design – from creating things and visuals to designing services and systems (Buchanan, 2001; Lee, 2024; Muratovski, 2015; Norman, 2016) and, beyond that, strategy (Stevens & Moultrie, 2011). Organisations appoint chief design officers to lead design initiatives at the top executive level as part of this drive to create design-led capacities (Pinheiro &

Franqueira, 2022, 2024; Quint et al., 2022). Top-tier consulting agencies have developed and acquired design capabilities to meet an increased demand for design skills in management and strategy consulting (Bongiovanni & Louis, 2021). This development has catapulted design's extended 'placements' towards shaping how organisations, systems, and environments are designed more effectively (Buchanan, 1990, 2001, 2019; Lee, 2024) to sustain businesses and productively engage the humans interacting within them. Therefore, the proliferation of design thinking in management settings may also influence how strategists undertake their work. Further, designers have new-found opportunities to work in organisations in more strategic ways. However, the implications of these developments for strategy are not clear.

Strategic Design and Design Thinking in Strategy

The concept of 'strategic design' has emerged as designers' contributions have become more relevant for strategy. The development of strategic design in relation to strategy recognises designers' contributions to resolving strategic issues and providing critical perspectives into strategy work (Jevnaker, 2000; V. Seidel, 2000). Design is also tied to strategy as it is a competency level and a dynamic capability that fosters strong external relationships, embeds iterative sense-making, and generates organisational value (Cooper et al., 2009; Jevnaker, 2000; Liedtka, 2020). Further, strategic design creates value for organisations by revealing greater synergies across the stakeholder network, providing opportunities to transform an organisation's value proposition (Bouman & Simonse, 2023; Manzini & Vezzoli, 2003).

Strategic design aligns an organisation's strategic priorities and plans and explores broadly into the strategy context (Gallego et al., 2020; Grimsgaard, 2022). As a result, it has been discussed as an underutilised systemic sense-making mechanism (Hill, 2012). It exposes important insights into how an organisation needs to adapt, realign capabilities, and seize opportunities by developing designed 'things' that are new to the world. Therefore, the implications and systemic issues relating to the product or service design need to be addressed (Buehring & Bishop, 2020; Simonse et al., 2023). Recent definitions of strategic design highlight the distinct contributions design makes to strategy. Strategic design emphasises the generation of ethical and socially conscious strategy as it works through strategic problems (Gallego et al., 2020), and it has become

a design profession that ‘co-determines’ both strategy and implementation for organisations and the people it concerns (Calabretta & Gemser, 2017).

As co-developers of strategy, strategic designers do not develop strategy on their own; instead, they seek the input of others to ensure that strategies are desirable, feasible and viable (Brown & Katz, 2009; Calabretta & Gemser, 2017). Strategic designers look to strategists and other stakeholders to provide important insights into their developing work. Collaboration and inclusivity contrast top-down strategy approaches that rely on strategists or managers to determine the strategy without broad participation (Mintzberg, 1990; Whittington et al., 2011). This contrasts the applications of design thinking in strategy, suggesting that designers are not required and that strategists can emulate design thinking effectively (Knight et al., 2020). The absence of designers in strategy work raises an important issue about how design is understood in strategy contexts because designers’ professional skills are developed in very specific ways, distinct from strategy and management traditions (Grant, 2008; Porter, 1996; Rylander Eklund et al., 2022; Schön, 1994). As designers move into strategy work, their skills are extended to shape organisations and their cultures, which presents a new practice for design, which is, notably, based on design traditions and education (Buchanan, 1990, 2001; Lee, 2024). A designer’s expertise is honed over time, involving extensive experience, and the extended placements of design in contexts become the learning ground for designers as they undertake their design work (Nelson & Stolterman, 2012). Further, deep design practice is hard to replicate as thinking *and doing* are integral to the designer’s work, and their experience only develops over time (Cross, 1982; Kimbell, 2011, 2011; Krippendorff, 1989). Articulations of design thinking separate the thinking from the doing and position it as a cognitive act, which implies that when design thinking models and frameworks are emulated by non-designers, in this case strategists, design thinking sufficiently produces a design result (Rylander Eklund et al., 2022). However, how strategists come to master design thinking is not understood, and we know that design thinking is a new idea introduced into strategy; therefore, some degree of learning, translation, and adaptation is expected (Knight et al., 2020; Wedlin & Sahlin, 2017). Further, design thinking is but one paradigm of design practice (Verganti et al., 2021) and does not represent the full potential of design applications in strategy work. As a result, we see the current discourse on strategy and design as limited because it omits articulations of design thinking learning and strategic designers’

involvement in the work when positioned through a design thinking lens. We see the omissions as creating an opportunity for future research on the basis that design thinking in strategy does not accurately capture how strategic designers shape strategy – nor does it accurately explain how strategists become design thinkers. Because designers learn how to practice in different ways to strategists, we also propose that the characteristics of strategic design practice are unique for strategy (Cross, 2023; Dorst & Watson, 2023), for which the distinctions need to be better understood.

Despite the lack of clarity about designers' roles in strategy work in the management discourse, design scholars have sought to conceptualise synergies between design and strategy using existing strategy frameworks and ideas (Jevnaker, 2000; Simeone, 2020; Stevens & Moultrie, 2011). Design approaches generate innovative strategies, whereas traditional strategy approaches do not (Carlopio, 2010). A related discourse deals with the role of design for sense-making and sense-giving in strategy (Buehring & Bishop, 2020), capturing the overlays and intersects of the same issues discussed in strategy discourse (e.g., Cornelissen & Schildt, 2015; Gioia & Chittipeddi, 1991).

Design has become an important part of business, yet little of the existing research has sufficiently shown how design and strategy practitioners engage with design concepts in strategy; instead, the various scholarly contributions are merely suggestions for how design relates to strategy or is helpful in strategy work. The particulars of how strategic design or design thinking change strategy are still underdeveloped (Carlopio, 2010; Knight et al., 2020). In particular, the roles of strategic designers and their practices are poorly understood, and it is unclear if strategic designers contribute a different and nuanced practice to strategy work from traditional strategists – even if they apply 'design thinking'. How strategy design informs or helps to develop strategic outcomes is unknown. This research addresses these fundamental questions of how design is used in strategy.

Knight et al.'s (2020) study on 'design-led strategy' assumes that product managers and strategists can undertake design thinking effectively, without scrutinising the level of exposure and experience in undertaking the practice. Further, despite such accounts, the tangentially involved designers are not recognised for influencing the strategy work. We, therefore, propose that narrow conceptions of the phenomenon of design thinking in strategy limit our understanding of what design brings to strategy practice. Further, a

tendency to focus on strategists or managers as the main actors of strategy overlooks the potential significance of designers in the strategy.

Recent discourses at the intersection of design and strategy show that it is crucial to explain how and if designers may be present in strategy making and to what extent they inform or influence the process. It is unclear which strategy or design practices develop together and what roles various actors have in strategy (Simeone, 2020; Stevens & Moultrie, 2011).

Alternative Perspectives on Strategy Approaches – A Fit for Design?

As we examine the introduction of design practices in strategy, we also seek to orientate this study towards strategy practices and traditions to understand how and in which way design practices have been understood to fit with and complement strategy (Charmaz, 2006).

Traditional perspectives on strategy (e.g., Porter, 1997; Williamson, 1998) adopt a macro-view, preferencing the role and influence of economic factors, such as the external environment, competitor positioning, etc. They have been criticised for their tendency to impose a hierarchical order on strategy, where individual managers or strategists plan strategy as an individual act of the mind with minimal involvement from other stakeholders (Liedtka, 2000; Mintzberg, 1990). With such perspectives, the analysis of an organisation's competitive position is centred on external factors and little attention is paid to how the organisation is coordinated internally. Liedtka (2000) proposes that managers and strategists could benefit from better *design thinking* as traditional approaches to strategy are problematic as they “attempt to make a science of planning with its subsequent loss of creativity, the excessive emphasis on numbers, the drive for administrative efficiency that standardized inputs and formats at the expense of substance, and the dominance of single techniques, inappropriately applied” (p.28).

Resource Based View (RBV) perspectives of strategy focus on the organisation (Kor & Mahoney, 2004; Penrose, 1959; Wernerfelt, 1984), paying attention to how resources could be configured and utilised to compete more effectively (McIvor, 2009). A progressive perspective of RBV seeks to activate resources as *dynamic capabilities* (Eisenhardt & Martin, 2000; Teece, 2007, 2014), which enable an organisation to sense opportunities, seize opportunities in the form of distinct strategy choices, and transform

itself to leverage the opportunities (Teece, 2007). As a result, a dynamic capability perspective of strategy goes some way towards aligning the external environment and the internal setting, incorporating broad research activities with carefully attuned manoeuvres to deliver a strategic advantage. Liedtka (2020) argues that design thinking is a new social technology that can support the development of dynamic capabilities in organisations. This can be achieved by activating a range of observed ‘design thinking elements’: a deep understanding of user needs, the inclusion of diverse perspectives, multiple solutions winnowed through experimentation, dialogue-based conversations, and supportive infrastructure (Liedtka, 2020, p. 65). While design practice is essential, the success of this integrated and embedded methodology is not contingent on professional designers undertaking this work but rather on effective organisational ‘infrastructure’ supporting this style of work.

Mintzberg (1979) posits that traditional strategies that are ‘pre-planned’ and then implemented do not work because they “ignore[s] the learning that must often follow the conception of an intended strategy” ; therefore, a strategy needs to afford adaptation and learning inputs (Mintzberg, 1979, p. 947). Emergent strategy is therefore proposed as an approach that acknowledges coping mechanisms in response to changing conditions (Chia & Holt, 2009). Strategists and managers who apply emergent strategy recognise opportunities and are open to learning from a changing and complex operating environment to adapt their strategy (Mintzberg & Waters, 1985). The principles behind this work emphasise that organisations must constantly contend with complexity, ambiguity, and continual change in order to function and remain competitive (Griffin & Stacey, 2005; Mason, 2007). Therefore, from this perspective, strategy is more about pattern recognition through action and is representative of an ongoing act of strategizing by attending to what arises in the day-to-day activities of business (Mintzberg, 1994). However, an emergent strategy is not a ‘means-end’ pursuit as reflected in more traditional rational approaches to strategy (Chia & Holt, 2023). Rather, it extends the *rational* logic of traditional strategy towards a logic of *practice* that accommodates coping and adaption, a *situation* that senses and makes affordances to adapt appropriately, and critical perspectives allowing to consider what else could be. Therefore, emergent strategy is an outlier approach to strategy as it demands an alternative way of being in strategy work and seeing strategy that traditional rational

approaches cannot afford because they are attuned to goals, planning, and a view that strategy is created and implemented.

Emergent strategy has been related to design as designers' work is also predisposed to respond to what arises from the design process (Fixson & Rao, 2014; Liedtka, 2000; Schön, 1994; Simeone, 2020). Fixson and Rao (2014) propose "that an emergent strategy sequence of design to build, test, learn, redesign, iterate, launch, scale is beneficial as it affords greater opportunity to experiment and learn" (p. 53). Alternatively, design has been proposed as a valuable approach to support emergent practices as it pushes strategic thinking into the future and enables learning (Buehring & Bishop, 2020; Simeone & D'Ippolito, 2022; Simonse et al., 2023). Yet, despite the synergies and overlays, mainly through design's alternative, creative, open, and exploratory logic and reasoning towards knowledge and problem-solving (Dorst, 2015; Martin, 2009; Rylander, 2009; Rylander Eklund et al., 2022), the discourse in design and strategy has not pursued this line of enquiry substantially (Simeone, 2020).

In this brief literature review looking for synergies between design and strategy discourse, we see that many proposals and examples of how design can support strategy work have been made, but they do not deal consistently with the question of who designs and how the design work takes place, for example, when design thinking is learned as a skill and employed by managers and strategists (e.g., Knight et al., 2020; Liedtka, 2020). Alternatively, strategic designers undertake strategy work using their specific design skills (Calabretta & Gemser, 2017; Simeone, 2020; Stevens & Moultrie, 2011). There is a lack of clarity about how design contributes to strategy work, how it is more broadly understood, and how design thinking has affected the adoption of design.

This study examines how design practices manifest in strategy and explores the roles of design in the strategy process. It also investigates the relationship between strategic designers and strategists and how their collaboration shapes strategy practices. By delving into this topic, we aim to understand the influence of design thinking on strategy and its relevance to the practices of both strategic designers and strategists. This research contributes to the growing body of work on the intersection of design and strategy, critically assessing the implications of design thinking in management contexts.

Methodology

Research Design

The study was designed to investigate an under-researched topic using a grounded theory approach (Corbin & Strauss, 2015). Our chosen approach displays methodological congruence because the topic is nascent but under-researched and crosses disciplinary bounds as a pluralistic topic; we also adopt an epistemological stance as social constructionists (Birks & Mills, 2015; Ward et al., 2015). Hence, we designed this study to explore how strategists and strategic designers describe their work practices. Initially, it was unclear how well strategy practitioners understood and applied design approaches, particularly if they had limited design experience. It was unclear how strategic design practitioners understood and applied traditional strategy practices. To develop the research design, we had to understand a practitioner's applied knowledge as we aimed to explore how participants undertake their work and how their practices play out (Sandberg & Pinnington, 2009). Assuming that design practices are employed differently across various strategic contexts, the research design must capture a broad spectrum of practices. We, hence, adopted a constructionist grounded theory approach, allowing us to generate meaning from the varied experiences of practitioners undertaking this work to explain how it is emerging in practice (Birks & Mills, 2022; Ward et al., 2015).

We used interviews and focus groups to capture the career experiences of practitioners and their application of design in strategy as 'narratives of practice' (Rouleau, 2010). Narratives of practice (also called accounts of practice) bring attention to practitioners' life stories and reflections about their work. We made sure to understand participants' perspectives, values, definitions of situations, and knowledge of social processes and rules to provide rich descriptions of their experiences with design in strategy work (Bertaux & Kohli, 1984, p. 216). The narratives of practice provided an opportunity to understand the 'sequential account of events', including those of other 'actors' central to the work, such as strategists, designers, and other stakeholders. This approach also helped us understand how individual experiences and knowledge inform practices about socio-professional [life and career] trajectories. Linking specific ways of practising and knowing was essential to explaining how and why practitioners undertake their work in one way or another (Rouleau, 2010). We obtained narratives through dialogue in

interviews and focus groups, where participants reflected on their practice, allowing them to describe nuances that would not otherwise be understood or verbalised in practice settings. Participants would sometimes produce artifacts or documents to support their reflections. This helped them to share how their practices unfold and have changed over time and highlight contrasts between other practitioners' ways of working. It also helped us as researchers better understand the articulations and differences between practices (Rouleau, 2010).

Individuals or groups engaged in the same activity often hold complex and diverse perspectives on a phenomenon. Through interviews and focus groups, we could discuss such differences and 'personal matters' like experiences, values and decisions, occupational ideology, cultural knowledge, or perspectives (Johnson, 2001). These discussions have contributed to our understanding of the practices. As we sought to understand how design is used in strategy, interviews offered the necessary privacy for questions about social complications resulting from certain practices between strategists and strategic designers.

We conducted ethical research following the requirements of the University of Technology Sydney Ethics Committee, which follow both the Australian Code for the Responsible Conduct of Research and the National Statement on Ethical Conduct in Human Research established by the National Health and Medical Research Council. The UTS Ethics Committee gave its ethics approval for this study. All research participants were given an invitation to participate and a Participant Information Sheet, containing a consent form. All research participants consented to participate in the study by a returned signed consent form or through a formal verbal consent process. See Appendix 7 for the specific forms and procedures followed.

Research Sample

Participants were selected based on their involvement in strategy and strategic design work. Our sample involved strategists in organisational roles, including general manager, chief executive, and analyst. We also included strategy consultants and strategy scholars. While some participants worked within specific organisations, others worked in somewhat aggregated roles, such as consultants temporarily supporting strategy work (Jarzabkowski & Spee, 2009). We further included scholars with a

holistic perspective on the strategy field and related professions. The sample also involved strategic designers with roles such as design and innovation lead and head of design. Similarly, some strategic designers worked within specific organisations, while others worked as consultants only temporarily engaging with specific organisations.

We recruited participants from different settings to comprehensively understand how design is used. This also meant that participants' geographies were not limited to one specific nationality/context. The sampling included participants located in Australia, Finland, Denmark, Netherlands, United States of America, Canada, and Norway, and the majority of the sample was located in Australia, which can be attributed to the lead participants' location and a natural result of a snowballing strategy. However, it is worth noting that the Australian context offers a specific level of experience in designing practices in management, given established institutions, such as TACSI, Meld, Portable, Paper Giant, and public institutions, such as the Australian Taxation Office (Body, 2008), as well as efforts to acquire designers into consulting practices (e.g., Aley, 2023). Therefore, there is potentially a degree of maturity within the Australian geography. Nevertheless, the focus of the study was to understand how designers are working in relation to strategy work and strategists. We wanted rich accounts of relevant experiences, and we, therefore, focused on experience over location or geography. As a result, we limited the sampling to only include participants with more than ten years of professional experience in their respective roles. The parameters of experience are important to this study because we also sought to understand how practices and careers have evolved over time, following the general trend of designers becoming more involved in management practices as a result of design thinking and other economic trends (Julier, 2017; Muratovski, 2015).

The initial sample was a purposive sample of five interviews to undertake a first round of analysis and direct further questioning (Chun Tie et al., 2019, p. 3). Purposive sampling directed the research towards particular participant groups and helped us achieve 'maximal variation' and typical cases (Patton, 2002). The initial coding based on the initial set of interviews directed our selection of subsequent research participants, consistent with a theoretical sampling approach used in grounded theory studies (Charmaz, 2014). Theoretical sampling continued as insights from data analysis informed us of useful lines of inquiry and which participants would be most useful for the study (Corbin & Strauss, 2015). Tapping into our networks in strategy and strategic

design circles enabled the ongoing recruitment of participants. This was necessary and appropriate for this study as the lead researcher had extensive prior experience and established networks in strategy and strategic design circles, and the availability of strategic designers was generally limited. Subsequent participants were recruited through a combination of the researcher's networks and snowballing techniques via participant introductions to other possible participants (Flick, 2009).

We used focus groups to capture and compare diverse experiences (Patton, 2002) and understand the relational aspect of practices with a particular focus on strategic design practices (Corbin & Strauss, 2015, p. 74). In correlation with interview data, focus groups enriched not only our understanding of the developing practices of strategic design but also how strategic designers work with strategists and the differences between practice types (Lambert & Loiselle, 2008). Overall, we interviewed 32 strategic designers and 18 strategists and facilitated two focus groups with eight participants in total. The interviews and focus groups were conducted online and face-to-face.

Data Generation and Theoretical Sampling

As grounded theory explains how a process unfolds, we sought practitioners' reflections on their work experiences over time (Birks & Mills, 2022; Charmaz, 2014; Corbin & Strauss, 2015). We asked for descriptions of how strategy projects were undertaken. Hence, the opening interview questions were designed to understand participants' career trajectories, experiences, and backgrounds and learn how they approach their strategy work (Rouleau, 2010). This highlighted commonalities and differences between practices, the personal impacts and insights from experimenting with design in strategy, and the obstacles that arose.

Memos and diagrams supported reflexivity immediately after the interviews and in response to deeper analysis of interview and focus group transcripts (Birks & Mills, 2022). Analysis based on preliminary coding helped develop intermediate coding and a line of enquiry more focussed on constructing rich descriptions of categories. Through this process, we elevated our understanding of the unique properties, dimensions (variation), and relationships between categories and developed a theoretical sensitivity to the topic (Hoare et al., 2012).

As the data collection advanced, we noted that strategic designers offered very detailed descriptions and deeply reflected comparisons of practices between strategy and strategic design practices. In contrast, strategists spoke more about design thinking concepts, such as human-centred design and customer research, or a designer's ability to visualise strategy aspects (Cross, 2023; Kimbell, 2012; Lee, 2021). Strategists tended to reflect on what parts of strategy design approaches were useful; strategic designers tended to speak about how design practices shaped the overall strategy process from start to end. Together, these accounts provided a rich dataset for further analysis.

Given that the primary researcher had extensive experience in strategy and strategic design contexts, including a deep understanding of context and theoretical sensitivity (Corbin & Strauss, 2015, p. 58), we checked for potential biases through reflexive memos as well as reviews from research collaborators with different experiences. We recognised that our theoretical sensitivity, which developed as the study unfolded (Birks & Mills, 2022; Findlay, 2002), allowed us to interrogate participant contexts and experiences with depth and awareness. This contributed to generating rich data and also enhanced the theoretical coding process in support of developing concepts (Orland-Barak, 2002).

Data Analysis

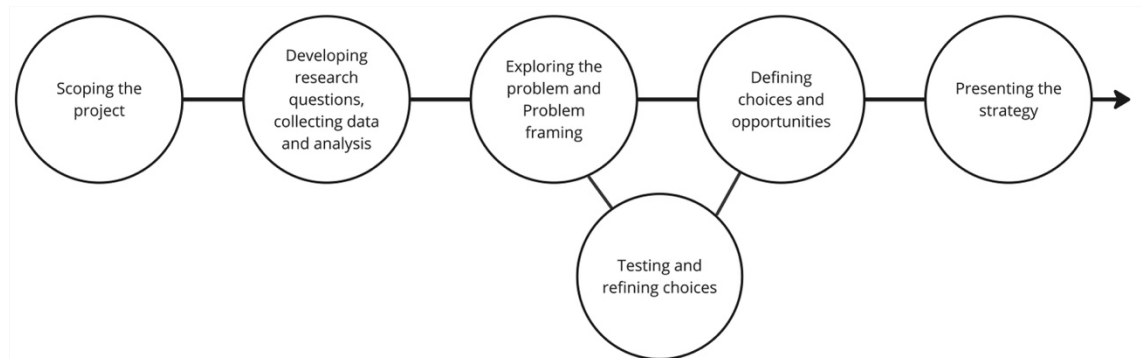
For the data analysis, we used NVivo and other digital tools, like Miro Boards and Evernote, that supported initial coding, memoing, synthesis, and creating tentative codes to inform definitions of code categories (Birks & Mills, 2022, p. 174). We started with coding five interviews using line-by-line coding methods (Charmaz, 2014), comparing instances and actions to establish emerging themes across the data, which we subsequently used for 'data generation' in later interviews (Birks & Mills, 2015, p. 72). We used code books to synthesise codes, look for emerging patterns and themes across interviews, and develop early categories. The initial review resulted in 90 categories (also referred to as concept coding) (e.g., Birks & Mills, 2022, p. 164; Saldaña, 2021, p. 152), which we used to code subsequent interviews. We used a dynamic combination of visualising data through diagramming, printing codebooks, reviewing lists, creating tables, and written memos to distil and synthesise preliminary categories and form a complete set of core categories and sub-categories (Birks & Mills, 2022; Cloutier & Ravasi, 2021; Miles & Huberman, 1994). The lead researcher produced over 200

memos throughout the analysis and data generation period, which were also used as data input throughout the analysis. This process was highly iterative and enhanced by reflexive memoing and diagramming, which was also facilitated by the lead researcher. This “dancing with the data” (Hoare et al., 2012, p. 241) generated initial and intermediate category attributes that gave us new paths for further inquiry, ultimately leading to robust and detailed categories in the advanced coding stage.

Following analytical techniques of grounded theory research (Corbin & Strauss, 1990, p. 19), we started looking for variance and change in the data. We identified strategy phases as a process common to strategy and strategic design practices (Figure 11). Yet, while process models of strategy and design exist (Ball, 2019; Mostow, 1985; Van de Ven, 1992, p. 171), the phases exposed significant variance across practitioner types and their work. Hence, they helped explain how design is adopted in strategy work, similar to how an analysis of processes has been used elsewhere (Isabella, 1990). As a result, we obtained a ‘combinatory view of strategy process and practice’ (Burgelman et al., 2018), featuring *design actions* and *principles* of practice that lead to a transformed practice of strategy, which we termed *strategy-in-action*.

Figure 11

Key Phases of Strategy Work



Actions capture *what* strategic designers do in their work and what they are looking for in how they seek to understand the strategic problems and potential opportunities. Principles of practice guide the actions to create specific types of experiences and interactions with others in strategy work. The principles, combined with action, generate strategy-in-action.

We modelled strategy phases into tables against our accounts of practitioner types (Cloutier & Ravasi, 2021) to establish the polarities of practices. ‘Polarities’ help us

clarify the range of variance between practice types revealed through the extremes of variation (Birks & Mills, 2022, p. 173). We then wrote relational statements (Birks & Mills, 2022, p. 175) to understand the significance of the phenomena and differences between practices, thus expressing the value and opportunities that design adds to the strategy process and how it transforms strategy work.

Upon further analysis, we noticed that strategic designers had provided detailed descriptions of their experiences at the micro-levels of ‘moves’ and ‘actions’. These appeared to be significant for how designers approached strategy as a distinct style of *action in practice*. In contrast, strategists discussed their experiences with design approaches in part but not as a consistent activity of *moves* or *actions* (Schön, 1994). Moreover, they saw design practice as an *optional activity* to obtain certain data, such as customer needs or visual artefacts. While strategists used design practice as a tool, strategic designers saw it as an approach to continually informing and shaping strategy work.

To enrich our grounded theory, we, therefore, clarified how the actions of strategic designers imposed a different approach to strategy work across the phases. Hence, we nested design actions and principles of practice in the overall concept of strategy-in-action (see Figure 15), refined the category labelling, and clarified their meanings through theoretical coding with extant theory (Birks & Mills, 2022, pp. 195–214).

The main category, Strategy-in-Action, developed through constant comparative analysis of our data (Charmaz, 2006), where we could see that strategic designers were moving through strategy in an emergent and reflective way, distinct from reflections about how strategists work. Strategic navigated strategy in an emergent and responsive manner rather than through established processes from the start of the strategy project. The label of ‘strategy-in-action’ became clear in a moment of reflection when a participant shared how strategy work was not concerned with following a specific process but contributing to strategic sensemaking during relational actions and micro-steps.

[Our role] was to be in a like a theatre relationship with the executive team to be stimulating their thinking, to be helping them, you know, ask questions and answer questions. That they had and to develop over time, greater confidence in

*the spaces that they were being asked to make decisions about. [like]
Influencing strategic planning exercises. (SD_44)*

As core categories and sub-categories formed, we used a storyline to develop descriptions of the concepts, properties, dimensions, and relationships between categories. A storyline helps establish a narrative that explains the emerging phenomena written in memos and developing paper forms (Birks et al., 2009). We also used tables to collate and abstract meanings from the data, which we present here to demonstrate how the analysis was advanced into categories.

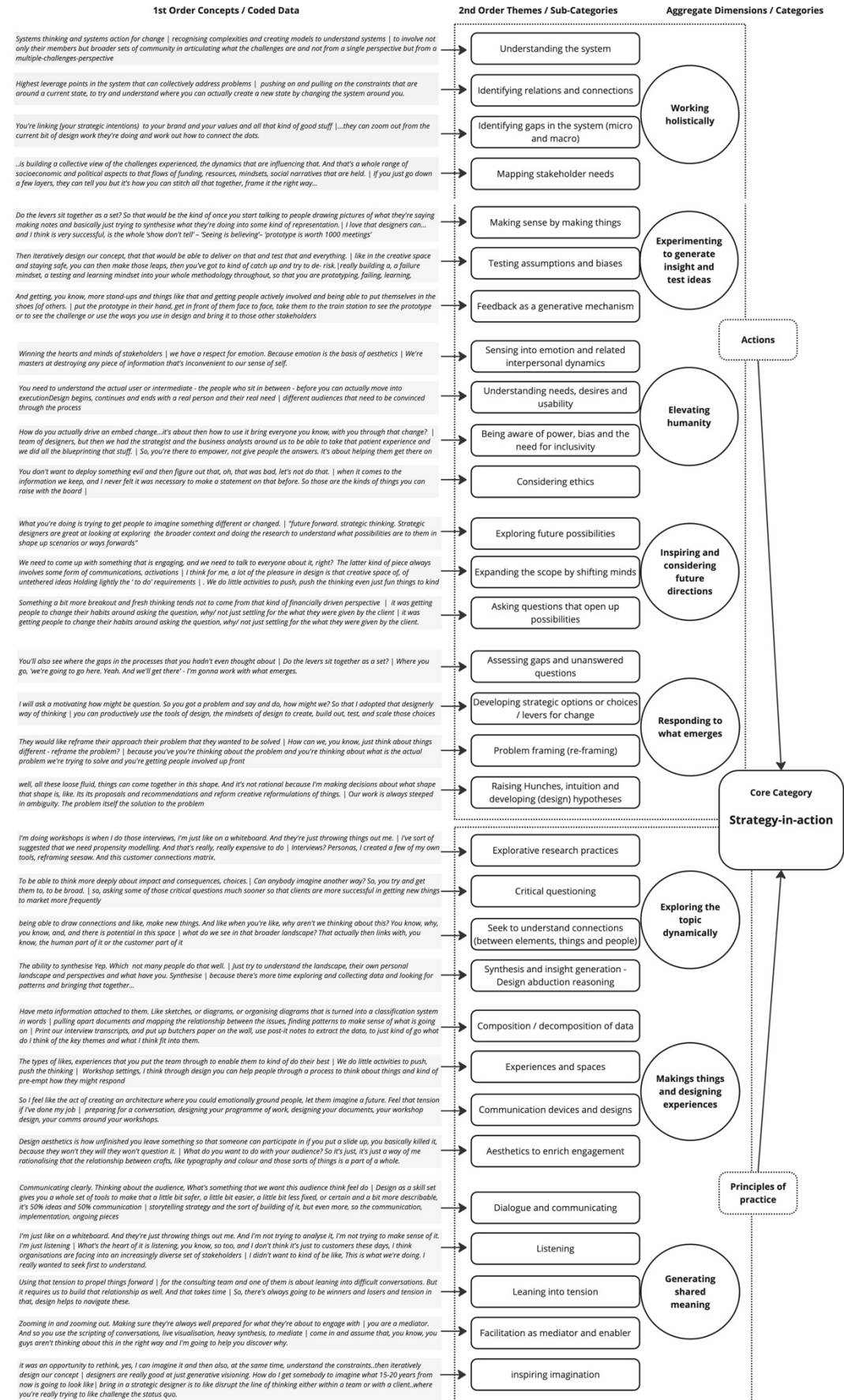
Data Structure

We used a data structure following the Gioia approach (Gioia et al., 2013) to facilitate the collation and organisation of our developing grounded theory and to demonstrate analytical rigour. By visualising the analysis, we identified gaps in the data. Where necessary, we reviewed the data collected, including interview transcripts, to see if these could be further explained (Birks & Mills, 2022; Cloutier & Ravasi, 2021). Moving towards more advanced coding, we engaged in theoretical coding and introduced the extant theory (e.g., Krippendorff, 1989; Mintzberg, 1978; Mintzberg & Waters, 1985; Schön, 1983). This provided explanatory power and led us to establish a grounded theory (Birks & Mills, 2022, pp. 204–207). We were able to place the key findings in the strategy and design literature and provide explanatory codes for core ‘processes’ and ‘roles’ of design in strategy. We coded the effects on strategy practices. From this process our categories and aggregate dimensions of the core category were formed, representing the actions, and principles of practice that lead to strategy-in-action

Consistent with our grounded theory approach, emergent strategy theory (e.g., Chia & Holt, 2009; Mintzberg, 1978; Mintzberg & Waters, 1985) was used to explain the significance of the core categories. Hence, we only integrated extant theory in the advanced stages of data analysis after core categories had been formed. The data structure guided the further development of the strategy-in-action concept (Figure 12 and Appendix 5, Table 14).

Figure 12

Data Structure



Findings

Exploring Accounts of Design Practices in Strategy Practice as Polarities of Practice

Our data shows that strategists and strategic designers approach strategy very differently. These differences largely affect how strategy projects unfold, how analysis is approached, and how stakeholders are engaged in the process.

Our analysis reveals a process model that captures common moments of focus in the strategy process. These crucial moments steer the strategy work in a certain direction or facilitate decision points, including, for example, what information to share with decision-makers and what opportunity to explore next. We identify six key phases: (1) scoping the project, (2) developing research questions and collecting data, (3) exploring the problem and problem framing, (4) testing and refining choices, (5) defining choices and opportunities, and (6) presenting the strategy (see Figure 11). In Table 9, we provide a summary of quotes supporting each phase. Next, we build on this process model to explore how strategic designers and strategists work differently across phases. We present these differences as polarities to highlight the variation between practitioner types. Then, we explore how these different approaches play out over time and how they impact strategy-making.

Table 8

Common Phases of Strategy Capturing Strategy and Strategic Design Practices

<i>Strategy phase</i>	<i>Scoping the project</i>	<i>Developing research questions, collecting data and analysis</i>	<i>Framing the problem, exploring the possibilities</i>	<i>Testing and refining choices</i>	<i>Defining choices and opportunities</i>	<i>Presenting the strategy</i>
Verbatim quotes indicative of data used to develop phase categories	I'll make a project description and start with workshops because we need to ask some questions that reveal the need for strategy (SD_35) To begin, I asked the manager questions about how many customers they had etc. because they had all kinds of different regional reporting mechanisms, and it didn't have a global picture of the whole organisation (SD_44) Traditional Leaders expect you to fill out what the end deliverable looks like and set up the skeleton of it on week one of a project (SD_46) I'll run a half or full-day workshop with the client at the very least at the start, after we've reviewed the current situation. The project is set up from these activities. (S_34)	We start by wanting to understand customer insights from their perspective (not from secondary sources). We do qualitative research including small sample size ethnographies. (S_43) Then the next step is to narrow it down to the top two bets, and then do some further research. You don't need to boil the ocean at this stage –you're going to have an understanding of the markets and the client's business position. (S_34) The focus is a smaller qualitative sample to prove it out. And then once you get greater confidence, then go and do, like, a large quant survey or, or something to validate it. we are looking to articulate the pain points in the market that need to be addressed. (SD_40) A classically trained strategist uses the analytical kind of method to be able to kind of undertake research – a scientific method of hypothesis, development, and testing and proving that out. (S_2)	I like to make sure we have a checkpoint to be on the same page with clients as we then go into working through what the options are for growth. (S_34) There's suspending judgment and exploring problems, being more generative and at volume. (S_2) Design helps to frame a range of possible answers. And create shapes of speculation about what the strategy can be. (SD_7) We are working on our hypothesis as we firm up the research and the synthesis. (S_34) We explored that possibility and exploited it to really understand it as a completely differentiated learning mode. The CEO liked it, so we explored it more fully. (S_39) So you got a problem and say and do, how might we? So I adopted that designerly way of thinking, which I think is just a more expansive framing of the problem. (S_5)	We wanted to know how we might do all of these things. So we came up with some quick and dirty experiments and narrowed it down to the options that really make us excited. (S_12) I find it's really great to get people physically together to wander around, and whether it's for an exec or really rough thinking to show leaders, or if it's for customers to come in and interact with things and vote for what they liked and leave comments. (S_3) We use Reverse Choice Engineering, which is basically around understanding what is true in this process works through the assumptions of what needs to be true for it to work. (S_2) The tests that were done at my previous company tended to be quite analytical. There were a lot of spreadsheets involved – that was the kind of test they meant. When we say 'test', we're, like, how could you build something? How could you put it in the market? How could you experiment in a very real sense for this? (S_6)	Then using the analytical approach to ruthlessly cull it to get good answers or not. (S_2) We ran a sale process over this part of the business. We had to work out what you do with the remainder of the business. We quickly formed a view that the client didn't want to wrap up the enterprise as a whole and delist. (S_9) I asked each side about each of those strategic possibilities with the question, what would have to be true for you to say 'That's a great idea!?' (S_5) Our client could use a combination of what customers valued from them and consider what are you best positioned to deliver, and what are their capabilities? (SD_36) Choices depend on whether the client would like to narrow down the option or go forward with a wide range of options, building a case for each, that they can then pick and choose from. The process depends on a preference for process the client wishes to employ and who making the decision. (S_34)	Then it's about turning an iteration of that into a finished product. How do we tell that story? How do we communicate visually? Video evidence from our testing, testimonials from customers or staff? All of this helps you say this is the path that we should go down. (SD_36) You have to have in-person interaction. So, there's got to be a presentation, and then there is always going to be a deliverable of sorts and I prefer that in a PowerPoint form. (S_34) I was really fighting to include the time of the visual designer in a project recently. I had to explain why that would be a good thing, because it was all about the client wanting to communicate using different messaging. (S_3) In that last workshop they presented a suggested roadmap, then they delivered us the final (PowerPoint) pack that went through everything: the justification, what got us to these conclusions, the proposal and this is what we want to do. (S_10)

Phase 1: Scoping the Project

Project scoping happens before strategy projects begin; it is significant for how design is brought into strategy project settings. Those who negotiate and plan the project scope define the details that ultimately shape the enablers and limitations of a strategy project. Embedded in these negotiations are preconceived ideas about what a good strategy project entails and how best to approach strategy.

Traditional strategy processes set boundaries to contain and direct strategy work, whereas strategic designers expect to explore some of the key assumptions before deciding upon a direction. In this phase, strategists undertake a small scoping study to determine potential strategic pathways, which they then use to determine a hypothesis. In turn, it informs the scope and forms of analysis undertaken as part of the strategy project. The key polarities of practice are centred on how fixed or exploratory a strategy project will be.

Phase 2: Developing Research Questions and Collecting Data

Phase 2 captures how research and data analysis activities are undertaken. Research activities are scoped following the strategy hypothesis or problem frame conceived in the first phase. The types of research activities vary between strategic designers and strategists, as they look for different data sources and seek to answer economic or human-centred strategic questions.

Strategists head into strategy work by analysing a set of questions formed by preliminary hypotheses. This will point teams to specific data sets and analysis tools and direct activities amongst team members. Usually, these data points are extracted from the organisation's performance and, more broadly, from an analysis of the market and how the organisation performs against competitors. In contrast, strategic designers use constructionist approaches to understanding problem spaces. These follow an abductive approach to *solution-finding* in that they seek to analyse strategic options by exploring the dynamics of the problem and running a series of tests to iterate towards viable solutions. Designers suspend judgment about the problem until they have undertaken a critical review of the problem and re-framed it. This requires designers to undertake research before landing on a problem. Unlike a traditional strategy approach, a hypothesis is formed well into a strategy project. In this phase strategic designers

establish their research programs and plans for undertaking exploratory research, which will continue to evolve as the project is underway. The key differences in this phase are centred on how strategic designers scope research and data collection to incorporate broader stakeholder needs. In contrast, strategists set forward a data collection plan that is directly attending to the hypothesis laid out at the commencement of the project.

Phase 3: Exploring the Problem and Problem Framing

Phase 3 represents a transition from data collection into sensemaking, where hypotheses are proved or disproved, assumptions are busted, further questions are raised, and directions for the strategy are revealed. The degree to which problems are framed at this stage depends on how tightly held early hypotheses are and how openness to new information might set the course for new problem frames and opportunities for a given strategy.

Traditional strategists will look for facts in their analysis to propose solutions for the strategic problem. In this case, the established hypotheses already have the characteristics of a solution. Therefore, the problem frame tends to remain consistent, but the data analysis enhances the details and means of informing a strategy. In contrast, a strategic designer will synthesise critical insights derived from their research and then seek to ‘reframe’ the problem based on what data collection and analysis has revealed. Problem framing determines what type of opportunities are helpful in the context. The strategic designer settles on a solution direction and then hypothesises a solution.

The polarity of these practices is about how broadly strategists and strategic designers explore the strategic problem context, the questions they raise, and how they frame the problem/hypothesis. Introducing qualitative perspectives through strategic design work produces a different quality of data for understanding needs and strategic opportunities. Strategic designers’ research may continue to evolve as the research will point to different lines of enquiry. Therefore, in this phase, the differences are really centred on how broadly problems are explored. Strategic designers may continue to undertake research divergently, and strategists stay within a pre-defined scope, with more minor adjustments to research plans.

Phase 4: Testing and Refining Choices

In Phase 4, practitioners spend time crafting and stress-testing strategic choices. This phase of choice refinement is all about establishing a set of rigorous and sound choices that will provide an organisation with a good strategy.

In this phase, strategists tend to provide evidence through metrics and data analysis. Some strategists use a certain line of questioning to test assumptions for the solutions they consider (e.g., 'What would have to be true' for this to work? as proposed by (Lafley & Martin, 2013, p. 186). This approach resembles designer principles testing ideas through questioning. However, the scope of research used to explore questions can be limited to existing data. Strategists propose choices to clients, often to gather feedback on the choices and directions rather than establish an open and exploratory dialogue. In contrast, strategic designers intentionally seek to prototype and test possible strategic choices with clients and possibilities with end users. This opens the divergence phase of problem exploration, where a strategic designer may seek to gather and integrate new insights. Strategic designers create new data that can be utilised to reveal potential strategic choices and test and, therefore, validate strategic possibilities. The approach is designed to challenge prevailing hypotheses and uncover potential issues as a de-risking mechanism before implementing strategies.

The polarities between practices relate to the degree to which hypotheses remain malleable, how open the discourse is with stakeholders in refining and validating strategic choices, and the potential to pursue alternative directions.

Phase 5: Defining Choices and Opportunities

Phase 5 marks the finalisation of choices and articulation of new strategic directions. Choices will also affect the organisation, its structure, and key business activities. Therefore, this phase determines the consequence of strategic choices in more detail.

Strategists tend to produce strategic choices derived through strategic analysis, leading to a situation when an organisation must translate strategy into action. Strategists will formulate trade-offs and potential choices with related modelling and analysis. Strategic designers also see strategy as choices. However, they emphasise the need for consultative approaches to implement the design in this phase. Strategic designers are

more concerned with ‘usability’ – that is, whether a strategy is desirable and usable within its given context. Therefore, in this phase, strategy stakeholders are allowed to develop their understanding of the change and generate a shared meaning about how the organisation will progress the strategy. This builds on stakeholders’ participation in previous phases.

The key polarities represent the degree to which organisations and relevant stakeholders have been involved in defining choices and how strategic options may become implementable within organisations.

Phase 6: Presenting the Strategy

The key to successfully developing a strategy is effectively presenting it to the organisation and its members. When strategies have crystallised, they need to be communicated, and Phase 6 captures the different approaches taken to communicate and share how a strategy will be implemented.

In this phase, strategic designers see the presentation of strategy as a collaborative exchange, where organisational members can meaningfully connect with the plans. This also means that strategy can be communicated in more experiential and material ways, for example, utilising walk-throughs, events, posters, and other artefacts. Involvement throughout the strategy project generates meaning and connection, creating opportunities and weeding out potential implementation issues. In contrast, traditional strategists leverage their expertise to build compelling narratives for change, which are usually delivered in a PowerPoint deck. The key messages are supported by analytical rigour and transferred into actionable items handed over to relevant stakeholders for implementation. Strategy starts and stops with the handover, whereas strategic designers can also sense and adapt to change when a strategy is implemented. This is because strategic designers tend to focus on the human aspects of change and are attuned to problems and issues. When strategic designers are utilised in this capacity in internal/in-house settings (consulting projects have hard deadlines and project delivery handovers, which limit capacity for further engagement), the strategy project does not have a clear end. Rather, it becomes an opportunity to refine and tweak aspects of the strategy as it is implemented, therefore challenging the notion of when a strategy project starts or ends.

The polarities of practice in this phase show us that traditional approaches to strategy aim to hand over strategy as a document (usually as a PowerPoint presentation). In contrast, strategic designers consider more experiential methods and means to circulate ideas and gather momentum around the change. While strategists like to deliver a strategy as a PowerPoint presentation, strategic designers prefer alternative modes of communication that challenge the conventional use of PowerPoint presentations.

Polarities of Practice Reveal a Different Approach to Strategy Through Design

As described above, the polarities of practice highlight the different approaches that strategists and strategic designers bring to strategy. Some practitioners are more open to alternative or new ways of working in strategy than others. We find that many strategists have experimented with design practices and appreciate the impact of strategic designers on their strategy practice. However, the opposite is also true, as noted by one of our interviewees:

Not all strategists have a fixed mental model about their process, for the record. There are some that are way more flexible. But in terms of polarities – like, your really traditional strategist sit up here, and then you've sort of got people who are more malleable, more open to different things and have respect for things that they can't do. (SD_46)

We find that strategists become curious about design approaches after they have been exposed to designers and design thinking throughout their professional careers and education. Many junior strategists who have recently completed a business education and have learned about design thinking are amenable to design approaches. However, our research clearly shows that strategic designers bring a different approach to strategy through the embedded nature of their design expertise. One that we identify is distinct from more traditional forms of strategy practice.

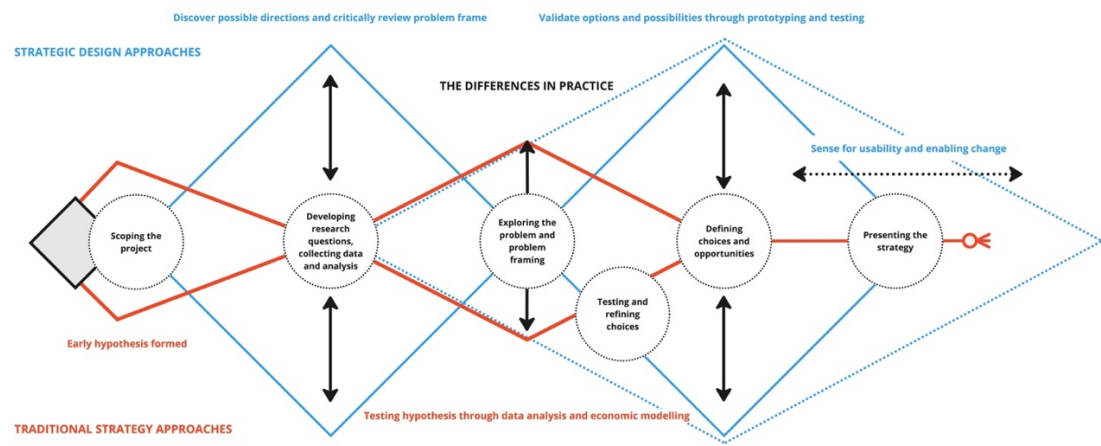
Furthermore, despite the development of design thinking as a concept in strategy. We find that *design thinking* as a tool is often applied inconsistently; it is not embedded in the strategy process – rather, it is used in certain situations and for specific purposes. Such use of design thinking limits the extent to which design practices create strategy. This implication also limits how *strategic design* contributes to strategy work, reflecting how little design is understood and appreciated in strategy. As one strategic designer

reflects: *“The design thinking tools are getting watered down, so they need to have a more pointed reinvention because they have become commonplace, and rather than being a thought exercise, they have become plug-and-play things”* (SD_4). This view is also shared by strategists as design thinking concepts have flowed into strategy work: *“I think design is just being termed as the modern discipline of creativity and ‘design thinking’ is our attempt to process-ify the discipline of design, which takes away the magic of the process in itself.”* (S_2).

The polarities of practice between strategic designers and strategists helped us understand that strategic design approaches to strategy differ significantly from traditional strategy practices (see summary Table 15 and Appendix 6). Figure 13 illustrates our findings as they relate to the strategic design process and are informed by our participants’ descriptions and sketches. Some participants also referenced the UK Design Council’s ‘Double Diamond’ (Ball, 2019) when sharing their reflections on variance. While the process juxtaposes a traditional strategy process and a strategic design process, study participants frequently referred to the ‘Double Diamond’ to describe the unique style of practices exhibited by designers when working on strategy. Consequently, we modified the model to include a representation of the strategy process, which research participants also modelled. Our accounts of practice support our expression of designers working in more divergent and convergent ways over two distinct movements (diamonds) centred on problem framing. These are mapped using the blue lines that follow a diamond shape. However, we also found a distinction in how strategic designers described their activities. The diagrams depicted in Figure 13 helped us explain how and in what form the strategic designers’ approaches come into strategy and their effect on strategy work. The red lines and smaller diamonds depict convergence and divergence as strategists move through the strategy process. When overlayed with the blue, more ‘open’ diamond shapes, it becomes apparent how strategic designers tend to spend more time exploring possibilities and the subject matter, and where or how strategists form their models and hypotheses to progress their work. Both are divergent and exploratory but follow different actions and steps (for example, strategists follow a pre-defined hypothesis, whereas strategic designers seek a better definition of the problem space), which lead to the strategic directions and next steps for organisations.

Figure 13

Polarities That Demonstrate Differences Between Strategy and Strategic Design Practices



What Drives Differences? Introducing Strategy-in-Action

The polarities of practice point to different styles of practice and expectations about what strategy involves and how to arrive at a robust strategy. We observed that designers spend time reflecting on the project work to decide their next step rather than sticking to a linear hypothesis-led plan. One strategic designer described: *“We’re going to go here. And we’ll get there...I’m going to work with what emerges”* (SD_20).

This experience can be frustrating for those practitioners who are used to more precise steps and contained project phases, mainly when time constraints exist and project delivery pressure is ever present (notably in consulting contexts). *“The design team feels under pressure to come up with the answer before they’ve got the answer, and the strategy team is like, ‘But you know what? Where’s your hypothesis on that?’”* (S_25).

We find that strategists move through strategy projects systematically, whereas strategic designers move between phases of project work as required. One manager who sought to bring design practices into strategy commented on the strategists’ reluctance to steer away from the set plan:

The strategists internally want to pull it back into that linear... ‘We still haven’t completed this box yet, and we really need to complete this box’. But we actually don’t need to complete this box. So it’s saying, ‘No, we’re not going to do that anymore. We’re actually going to shake it up because it needs shaking up!’ (S_49)

For strategic designers, decisions about what to do next become evident as the project progresses. This is not to say that a strategy project with design has no structure; instead, the structure of a strategy project needs to afford practitioners the flexibility to move and respond to what is arising:

I was trying to direct a whole bunch of operational-type improvement people and one of the strategy partners was kind of overseeing it. [...] after four weeks, I said, 'Look, I'm not needed on this because it's just not working. They're just not getting the traction. You're all wanting to do the classic 'provide the answer'. Whereas I still want to ask questions and engage the organisation in what we're doing and make it more of a co-design because I actually believe the frontline might have something to contribute, but you want to package up into programmes of work'. I said it's not working. So I said I'll just take myself off the job. (S_39)

Bringing design into strategy makes the strategic process more iterative, full of movement and exploration, and characterised by seeking insights and evidence through what emerges in the work. Strategic designers drive their processes through action, making sense of the requirements for strategy as they go rather than strictly from the outset.

In strategy, designers change the way the opportunity of the landscape is framed, which tends to be in a much more open-ended customer or person-centred kind of outcome rather than a more narrow short-term financial outcome. So there's nearly always a kind of reframing of the problem statement. There's a lot more workshopping and using different facilitation techniques to bring out new and creative kind of points of view. And there's a lot more visualisation of the strategy, that that supports, both testing that strategy and on ultimately communicating. (S_25)

Ultimately, we see that strategic designers drive strategy projects forward by considering the strategy's usability for the strategy user (much like a designer might do for a product, service or building) – because a strategy will be lived and used. “So, who needs to be involved in the process? How do they take ownership like and ideally, we're working really closely with the client team, who's going to be delivering and

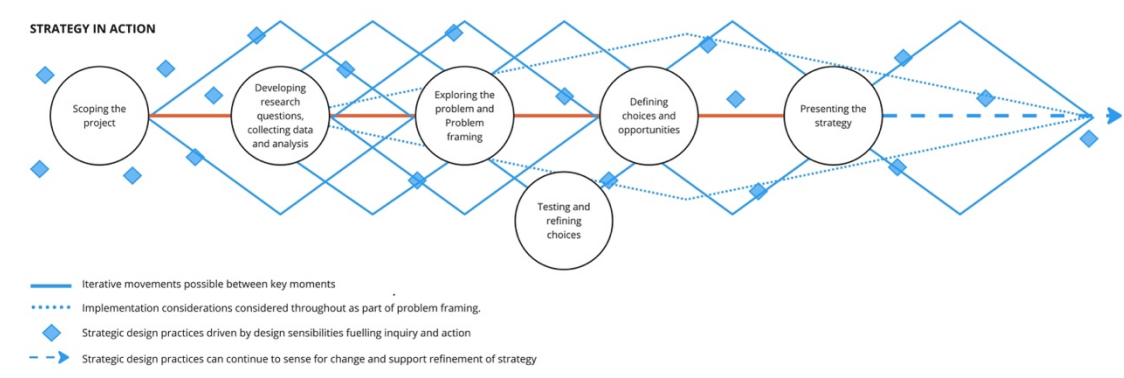
implementing from the beginning” (SD_23). Treating strategy as a design project creates space for collaborative approaches that build buy-in but also allows insights from the strategy users and implementers those implementing the strategy as to how well the ideas work and what needs to change. Design “creates a strategy that sticks and sticking more isn't just the people that are involved in that believing in it more. It's that it's more implementable” (S_30).

Design actions are motivated and directed by actions that invite experimentation and understanding the problems from a holistic and systems perspective. *“There's more time exploring and collecting data and looking for patterns and bringing that together” (S_25). Strategy-in-action results from these unique characteristics carried across by strategic designers into strategy.*

To further explain strategy in action, we describe how strategic designers, through their design practices, gradually focus on a set of actions that coalesce with principles of practice, to create new types of strategy experiences.

Figure 14

Strategy-in-Action: Captures the Iterative, Reflective and Exploratory Approaches of Strategic Designers



Strategy-in-action comprises a dynamic combination of design actions and principles are conceptually presented as a series of divergent and convergent experiences through strategy-making efforts. The blue floating diamonds in Figure 14 represent how actions and principles come together to inform the activities undertaken in strategy work as an ongoing approach of synthesis and sensemaking (Kolko, 2010a, 2010b) (see also Table 10). This highlights that they can be overlapping, recursive, and repetitive and occur when appropriate. They are drawn upon where practitioners see them as necessary in the process.

In what follows, we explain strategy-in-action through the categories that generate action in strategy and introduce the principles of practice underpinning the actions that make strategic design work differently. We then go on to explain how strategy-in-action transforms strategy practice.

Table 9

Example Quotes, Strategy-In-Action: Actions and Principles of Practice Across Phases

Strategy phase/ actions	Scoping the project	Developing research questions, collecting data and analysis	Framing the problem, exploring the possibilities	Testing and refining choices	Defining choices and opportunities	Communicating the strategy / handover
Actions						
Considering the whole picture	Unless we understand what our role internally is in the system and how do we then position ourselves in a wider ecosystem? (S_49)	Designers take a problem that needs to be solved. and then it is 0 is intellectual, but it is also a bit embodied or somehow it is kind of more holistic in what they're doing... the first part of the Double Diamond you are in the problem space, you open-up things, you look at different things, and then you close things. (S_43)	Being great at identifying the most important problems to solve and in what sequence and who to bring in to help solve those...even if we don't know the answer, yet. (SD_48)	We can work in partnership or how to work in partnership with a designer who comes with a more strategic lens to think around the whole solution. (S_27)	I'm anticipating what's going to be an internal business challenge and employee engagement challenge and conflict with whether we're going to sign off on deliverables and we're going to have to escalate and what's the path of escalation? (SD_44)	Consider organisations to continue to evolve and change. Design sensemaking design research keeps strategy relevant and attuned to change
Experimenting to develop shared knowledge	I think that's customer testing, prototyping. Experimentation are key tools in that particular part of the process...then in the proposition design, I think bringing it to life faster, and testing the assumptions faster is a big one for us designers. (SD_46)	They have a place but actually really understanding the needs of users and designing for those needs rapid prototyping experimentation. You know, that's where it's at. And that's how you're actually going to move forward. (S_37)	We try to create like just some sort of experience, but we look at. We ask clients to build a totem of what their company is like... and create two or three of these objects that define your brand or your business. (SD_4)	We would often do a bit of like, okay, do a bit of a test and learn or get some feedback or insights from either other stakeholders or customers so that could be b2b customers or there could be b2c customers. Just to sort of refine some of those strategies. (SD_33)	In design, you're not, you don't have one idea that you're implementing, you have a portfolio of ideas that you are experimenting with shift from individual idea being implemented to portfolio being experimented with. (S_16)	As we implement the strategy and transform the business there will things that we realise are a bit unresolved from a strategy perspective, so our designers might come back and do a deeper dive on a customer experience or channel proposition that needs more thinking before we can design its target state. (S_25).
Elevating humanity	I can bring in my knowledge of design thinking and know-how to get the customers involved and how to look at the customer value and data and bring	I think we're particularly where design helps make sense of sentiment and customer experience or the experience of people or other stakeholders can do that	We ask: what will your customers value from you? ...what are you best positioned to deliver? What are your capabilities, what can we be excellent at and	The design teams have more creative options in their toolkit of things to bring to those workshops and tend to be a little bit more thoughtful about the	We got there through a series of workshops with the executive team and in between we will do the work with the functional teams...so defining and giving	You need to understand the actual user or intermediate have the people who sit in between before you can actually move into execution just to make

	the people in the employee experience as well. So I want to bring in the human thinking from different perspectives. (SD_50)	in a much, much earlier I think and you can pick up in financial metrics. (S_25)	how does that align with customers' values that gets to achieving the vision. There are different ways to go about it and design is very good at exploring alternate possibilities. (SD_36)	emotional temperature of the audience kind of through that session and how they get the best out of them. (S_25)	more colour to those strategic deliverables is something we would work with our teams on. (SD_33)	sure that you don't make some something of an ivory tower that that is not relevant. (SD_33)
Inspiring and considering future directions	To get that creativity into things, showing that there was permission to put personality into the process. And that was really the biggest difference between the structured problem-solving way of looking at things and then the more design thinking way of looking at things. (S_30)	We have a maybe a midsize business or even a bigger one but still they're usually they're so stuck with their existing business - or kind of "the box" of their kind of their - "this is what they do, we have this limitation". and then we start the exercise, sometimes usually we get people to people to like work this visual, we tell them: 'okay, imagine that you are a startup that has \$5billion kind of investments... (S_43)	Taking a future visioning approach. So giving, setting a full workshop with a bunch of 2050 prompts, to generate ideas for where the business should be going and what the biggest challenges will be in 20 years from now. So I think that's one technique I've seen work quite well. (SD_46)	I have also heard from strategists saying if they don't get the right design talent coming in, they're not able they lead, they lead a cohort into solutioning. And that's not what you want, an envisioning piece, it's not about finding the solution. It's about keeping it up at the vision. (SD_14)	Designer challenge the status quo thinking, to increase the chances that you'll get a strategy that's got competitive difference that's you know, distinctive from competitors and increase emotional engagement and buy-in. (S_25)	So while we did was we did help her create a presentation, a deck that she could sort of introduce people to the most important choices, but then we said, how can they experience the strategy?...so what we did was, we made each space represent an era of the company and the strategic choices that were made...That was about their reflections, their engagement with the strategy. (FG1_4)
Responding to what emerges	I'm trying to find like an activity or an exercise to get to something and do it with multiple people so almost like always start with a blank canvas. And try try to populate it together...then so it brings in a bit of creativity, I think. People might not necessarily always see the point at the first start, but then you get, you know, you take the	It's a lot more ambiguous where you know, your customer is not necessarily going to be able to design it for you, but you're going to get a good sense of what their hopes fears desires are and whether there's an unmet need, which is also a gap in the market. I think it's really hard. And those who don't have great II sort of empathy, or lateral thinking, I find it really	Just talking, talking through ideas and concepts. I'm comfortable, I love coming up with half baked ideas. what about this? And when you get in the room, or your work, you're collaborating with people in that have that sort of mindset. It's a safe space to come up with bad ideas, because there might be a kernel or a nugget of	The ability or proof of being able to take input from a number of different places. So of course customer insight, but then market dynamics Tick, tick innovation, business model innovation. Competitor mapping in the space so being able to take data points from a number of different places to navigate, what could be a potential or envelop you to articulate	So are always more oftentimes more so as to facilitate or get the other people, the other experts in our company to join in and give their ideas and give their like feed feeds into projects. And we don't need to know anything or everything ourselves. Of course we don't have to know something and be able to synthesise like where do we want to go? What is the benefit for	The implementation, if you use design methods during the implementing, most likely even doing that once you start to make things happen, you'll learn more and you will notice that not everything that is thought about in the strategy make sense or we need to adjusted and you need to be, again, hypothesis-driven, customer driven, do

	steps and you get somewhere and then the other thing would maybe be the iterative approach. So not trying to make it perfect. And then this is it. But always let's start with this and then see what we think and can we build on it and can we iterate it as we go? (SD_29)	hard to do the synthesis stage of research. They might be able to get the facts. But I think the synthesis of insights into meaningful So what sort of identification of an opportunity becomes a little bit harder. (SD_48)	something interesting and building on that. So what about this? What about that? Whether it's an insight or they said this, but that person said that, maybe maybe they mean something different? What does that mean? Or a concept? (SD_28)	a vision or even sort of invalidate a vision as well of just this isn't going to work or refining a solution. So sort of being I often say like almost looking for someone who takes that creative leap and inspiration and data points and can map that map that together. (SD_27)	everybody? And what was the question? We were asking to answer in the end. (SD_50)	testing, prototypes, and also in the past implementation phase. And what's crucial, we also need to kind of have a feedback loop from the current implementation back to the formulations and continual loop. (S_43)
Principles						
Understanding the context through enquiry	A designerly approach says, No, no, it's problem-solving. You gotta ask an aspirational, 'How might be?' Questions, go broad, consider users the breadth of what the users are all about? Uh Don't. Ask Don't obsess about what is true, obsess about what would have to be true, and see if you can make things true that are out, and that's that's a yeah to me. That's what I call it. (S_5)	The analysis to the customer insights. We conduct ethnographic deep dives into our customers worlds? We do qualitative, small, small sample size but either it's not really ethnographies. We really do a three hour interviews at homes or people's work places. But with B2B project that is our professionals we are interviewing one to, one and a half hours, usually at their at their places. And then with consumers, you get three hours if you just incentivise them right. So that's already one thing that we can do that. Then already the kind of analysis we always learn something about the customers that the company has missed. (S_43)	And during that would encourage everyone to capture you know, thoughts on post it notes on opportunities and not ideas. I level when we briefed them on what an opportunity is and things like that, and how to frame it. Yeah. So that was your inspiration. (SD_42)	They are different per client depending on where the clients maturity is at. The idea is to like, be provocative without being annoying. And there's an art yeah, there's an art to doing that from a facilitator perspective. And that, as well as saying the facilitator is a fairly senior, they know how to manage that they know how to do like the process of it. As well as inject certain activities. Like what a couple of our strategic designers often do, like physical role plays, which you have, you have to have a certain experience and confidence to be able to do those sorts of things that will push the client outside of the like physical and emotional mind mindsets and allow us to potentially	Isn't it awesome next meeting like it is very much okay, we did all of his work. Let's do some synthesis together. Let's let's identify customer needs or okay, we've now done that with a larger team now with the senior executives. Here's the synthesis. What do you see what opportunities come out so it's very collaborative, very much about bringing our clients along with us on the journey. (FG1_1)	We want to ensure that they have the intuition and knowledge and understanding to carry the work forward, so that you're going to that engagement along the way. Other times, it's that and they're very interested in how we do it, so that they maybe can either continue on that project or do it themselves in the future. So you might have a little bit more of a learning focus with that up so okay, you know, we're in this part of the project, here's what it's going to do, have them be shoulder to shoulder and working on it with you. (FG1_3)

				like think think differently. (SD_40)		
Making things and designing experiences	The people who were used to dealing with strat houses were totally different for the people dealing with design agencies. – we kind of bridging those two worlds and the way we did that, I would argue wasn't with the process, it was actually with an experience. So everything that we offered was a highly experiential way. (FG2_2)	We came up with very specific sets of engagements depending on what milestone we're in, and where we were in the in the process, working towards outcomes of the strategic choices and theory of change. (SD_21)	Teach them how to conduct an experiment design and conduct an experiment, or, you know, do a journey map. (S_16) Designers are visual. I like to get into a problem in a messy space before you give it structure. It's probably something that's quite different. (SD_46)	Design is very good when it comes to testing the like the how well those things are going to work. So we can prototype even theirs from an organisational point of view at that conceptual layer of what would that strategy look like in practice. We can tell that story through storyboards or business models or whatever. And we can test several without actually executing any of them. (SD_36)	You'd make more boring subjects like initiative prioritisation; you make it much more creative. So people would get more engaged, we'll put more emotion into those sorts of processes by making it more visual, not just having a spreadsheet and going through a list and you'd use post notes and whatever it might be and get people into it. (S_30)	How do we tell that story? How do we illustrate and communicated visually? How do we bring it to life with other stories? You know, video evidence from our testing testimonials from customers or staff, whatever it might be. That helps you say this is the path that we should go down. (SD_36).
Generating shared meaning through dialogue	Preparing artefacts, so artefacts are sometimes these pictures so that we can communicate what we are trying to say or make make the thoughts in people's head. More or more tangible. Other people comment on them. Yes. They are not just talked about we are like talking about the same thing. Or we know that when we talk about the cat the cat is green, yellow or black. Is the green kettle that we're talking about. So that is the facilitating the conversations to align around the same job. That is a big, big part of this work. (SD_50)	When I'm doing workshops is when I do those interviews, I'm just like on a whiteboard. And they're just throwing things out me and I'm not trying to analyse it, I'm not trying to make sense of it. I'm just listening and taking those bits of mud on the face, or whatever they are. So I think one is, you really have to let go enough of what you think, to be able to hear what others think, and what others need. I think if you really want to make change, you are uncomfortable, because you have to step outside your comfort zone. (SD_20)	I mean, we would go in and deck out a room with like, all the stages of the process, where we're following and what was happening at each stage so that if any given moment of anyone walked in, we could give them a tour. This is what we're doing. This is what we heard from customers. And it was a very experiential thing. We'd have workshops, which were very high touch, Big Bang, highly orchestrated, choreographed, all that kind of stuff. (FG2_2)	The designer created these beautiful information visuals... visualising their mortgage portfolio. It was just exquisite. It was the kind of thing you could put in a gallery –there were these big posters and they would spark conversations, because they weren't necessarily immediately obvious what it was, but you'd have to kind of come up and engage, and then you'd realise and have these penny drop moments. So there was a very powerful communication element in these artefacts. (FG2_2)	There's all these various actors, so there's a candidate of people later on a recruiter and they go through their whole journey. And so these were all our sketches that we did and all the concepts. So we did serve as propositions across the journey. And then we went okay, well, how are then people then interacting with it? And this is their whole and so we talked through a story and what happens and then you have all the concepts that then go with lovely, and, and so this then just achieves just like rapid alignment. (S_37)	The strategy needs to be memorable and internalizable. There are the workshop tools, but it could just as easily be communicated through a magazine or a video or it could be sitting over a meal and discussing together. We need to rethink how ideas proliferate and get embedded with people and how you align people so that it makes sense and is truthful for them. Design should continue to keep a perspective on what those initiatives are that are being brought into the strategic execution in this way. (SD_7).

Design Actions and Principles of Practice Bringing a Different Style to Strategy Work

We identify two major categories that work together to form strategy-in-action. These are the *actions* that strategic designers take to navigate strategy and the *principles* of practice that underpin strategic designers' actions (Figure 15). The core category of *actions* drives a particular set of decisions about what the strategy project requires. For example, it produces opportunities to consider how others may be brought into the work and which information will be generated to inform strategy work. The actions include:

- Considering the whole picture and working holistically
- Experimenting to develop shared knowledge and recursively working through possibilities
- Elevating humanity and considering the condition of being human
- Inspiring and considering future directions and disrupting conventions
- Responding to what emerges and taking creative leaps towards action.

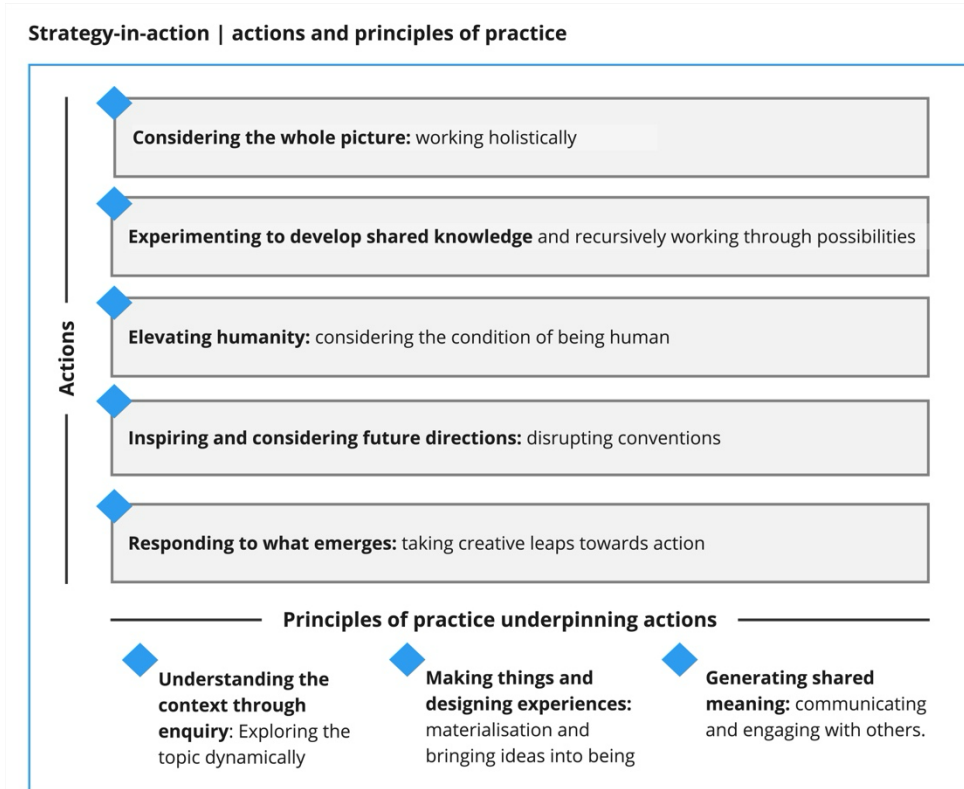
Principles of practice determine how the five actions are experienced by designers and other participants involved in the strategy process, including staff from the organisation and potential customers. We find the principles of practice embedded within the actions and determine the experiences and conditions of strategy in a designer way. The three principles of practice underpinning actions are:

- Understanding the context through enquiry: exploring the topic dynamically
- Making things and designing experiences materialisation and bringing ideas into being
- Generating shared meaning: communicating and engaging with others.

The narrative of the broader actions will demonstrate how each principle of practice supports, enables and enhances the actions in what we describe in the following as *strategy-in-action*.

Figure 15

Strategy-in-Action, Actions, and Principles of Practice



Principles of Practice Underpinning Actions of Strategy-in-Action

Exploring the Topic Dynamically: Understanding the Context Through Enquiry

Strategic designers explore problem contexts through primary and secondary data research activities. Their first task is to diagnose the problem by understanding more about the organisational context and the issues perceived as significant for the organisation in light of new strategy development. In this enquiry, strategic designers seek to understand the drivers for change. *“I’m doing workshops when I do interviews; I’m just, like, I’m on a whiteboard. And they’re just throwing things at me and I’m not trying to analyse it. I’m not trying to make sense of it. I’m just listening”* (SD_20).

Once the drivers for change are understood, strategic designers move towards understanding broader issues of the problem space to work through potential avenues for change or growth, depending on the strategy aims. In this mode of inquiry, strategic designers seek broad stakeholder perspectives, including from customers and other

relevant stakeholders. Through qualitative research, strategic designers conduct interviews and ethnographies/observations or use other experimental methods to elicit inputs that can shed light on the issues and opportunities. These are then used to frame the problem and identify key opportunities. The enquiry is led by key questions that arise from understanding the problem from a systems perspective, initial interviews, workshops, etc.

We conducted over 30 interviews with children and young people, which is nothing new, that's like basics. And then, through that, we homed in on specific areas that children and young people would like to co-design with us. And we had a care-experienced young person in our design team. And then we assembled a team of seven or eight young people who are currently living in residential care to co-design solutions with us. (SD_7)

Strategic design research is immersive and seeks to interrogate the context and opportunities in human-connected ways. Strategic designers home in on understanding the experiences and issues of those who are experiencing the problem whilst also seeking to correlate the significance of findings with other data courses – which leads to insights. Further, they are seen to bring in greater criticality by “*seeking to understand the emerging socio-technical phenomena around choices – thinking more deeply about impact and consequences of choice*” (SD_21) – in how they interrogate the broader systemic issues relating to strategy. One strategic designer shared a striking example of this, explaining how they were developing a strategy that was addressing the issues of their customers who will be impacted by climate change. Their intention was to prepare the organisation by proactively developing appropriate and necessary initiatives for this.

In a strategy context, business analysts (including strategists) who undertake traditional analysis support this work and provide important inputs for identifying key issues and opportunities. Therefore, the enquiry is enhanced by synthesising insights from different sources and interrogating various issues.

Exploring the topic dynamically to inform the strategic direction requires broad exploratory research activities, using qualitative research techniques that engage various participants in conversations about the strategic problem. Strategic designers bring a critical perspective to what is understood about the problem, test assumptions, and

expand the thinking outside of current paradigms to de-risk strategy. By synthesising diverse data inputs, strategic designers seek to make creative leaps and connections between otherwise disparate or unconnected entities and ideas.

Making Things and Designing Experiences: Materialisation and Bringing Ideas Into Being

Strategic designers materialise thinking by creating lists and maps to identify opportunities for change. They iteratively ‘compose and decompose’ elements to find new structure combinations and configurations to achieve a desired change. This principle seeks to produce artefacts that facilitate reflection and discussion with others around the potential of solutions. These are reflective actions that consider developing issues of the strategy with the opportunity to find new connections and raise new possibilities not yet conceived. Elements are moved around into different combinations and constructs to imagine possibilities, which can be presented and tested further. As one respondent describes: *“We have meta information attached to [developing insights] like sketches, diagrams, or organizing diagram. If I really broke it down, it's generating a classification system in words, that is then turned into another kind of classification system in words”* (SD_1).

Strategic designers consider how the spaces will support constructive conversations so participants can contribute to strategy, creatively considering options without risk and fear. The physical spaces can be occupied with artefacts, take on a specific tone, and facilitate conversations and dialogue with specific intent. How designers craft these moments of interaction is important to how well people engage with strategy content and experience the overall setting, engagement with the ‘things’ and dialogue. This principle is centred on facilitating a productive experience towards strategy-making that considers human aspects such as emotion, power, and relational dynamics.

I think design can help to make a pathway between an intent and behaviours much more likely and much more human and enjoyable. You know it, it's about: if this is our strategic position, what do we do with our premises to make that more likely? How do we design our workspace to make that more likely? How do we design the way we meet and have arguments to make that more likely? How do we design the artefacts we use for our day-to-day business? So that's

like the implementation end of the, we've, we have a strategy now, what does that strategy look like and feel like in an experience of doing work, rather than it being, this is your strategy, this is the strategy. (SD_7)

The significance is that designers create spaces and experiences by sensing potential emotions by 'reading the room' and supporting productive and constructive dialogue. This principle involves designing spaces and environments and considering how participants are engaged within them throughout strategy work.

Practitioners expressed that producing material artefacts was a powerful feature of their work in strategy as it more readily afforded opportunities for participants to engage with strategy dynamically and build a sense of ownership and understanding about the directions.

For the final communication with the strategy, we used visual designers to design the experience based on the strategy workshop outputs. These communication materials went all the way up to very senior levels. I think communication of the strategy can be really effective when done in a visual design kind of way. Whether it's using infographics and other kind of design tools. But certainly, strategy is not just about making the right choice; it's also about how well it can be communicated in a coherent and engaging way. Because, if you don't communicate the strategy, then you might as well not have a strategy. If people don't understand it and they can't get their heads around it. – They're not gonna be able to deliver it. (S_10)

Therefore, strategic designers are engaged to produce visual communication materials other than PowerPoint decks to invite broader engagement with the strategy. Strategic designers also emphasise the importance of aesthetics in communicating strategy to others and the need to consider how people can be attracted to ideas or not – aesthetics might involve aspects of beauty but also how messages can be translated into clear forms that people can identify with and thus develop a meaningful attachment to.

My success as a designer has been [being] able to channel a culture.... And that's how to really think about PowerPoints and so on. [It's the] intent, overall narrative is at the top, what's the culture you are tapping into and what's your intent. What do you want to do with your audience? So it's just, it's just a way of

me rationalising that the relationship between crafts, like typography and colour and those sorts of things is a part of a whole, and that sort of strategic communication needs to take in all those things. (SD_7)

Strategic designers synthesise data in material forms by composing and decomposing data to develop insights for strategy. They consider the design of the environments and spaces that host and hold strategic conversations carefully as an important enabling task of strategy. By producing engaging and purpose-fit visual communication materials, they leverage aesthetics to elevate engagement with key concepts of strategy and build interest, momentum, and a common understanding of the direction.

Generating Shared Meaning: Communicating and Engaging With Others

Dialogue is an important aspect of undertaking strategic work through design; moments of discourse are facilitated with the materialisation of dialogue in some instances.

Strategic designers discussed the importance of combining dialogue with visually mapping what is being discussed in strategic conversations. The generation of conversation maps and diagramming allows groups to reflect on the subject matter and build shared meaning, define new propositions, and understand the various dynamics at play within a strategic field. Strategic designers see their role in such strategic conversations as ‘mediators’ who carefully curate the conversation flows, ask critical questions, and drive groups towards a resolution. We found that strategic designers are identified as good ‘facilitators’ because they consider moments of engagement with stakeholders carefully, “*communicating clearly and thinking about the audience: What's something that we want this audience think, feel, do? What do we want them to actually like? What's the conversation you want to have?*” (SD_23).

Strategic designers are good listeners because they seek to gather deep human insights and understand the problem from multiple perspectives. Listening becomes a core part of facilitation in workshop settings, allowing strategic designers to understand the dynamics between stakeholders and accordingly navigate bias and power dynamics that have the potential to move the conversation in certain directions. Strategic designers seek to raise tensions between individuals with opposing views as opportunities to find common values and issues that can facilitate change.

We have a set of principles for the consulting team and one of them is about leaning into difficult conversations. It requires us to build that relationship as well...[so we refer to] 'we and us'. We will work with execs... 'Okay, you've got this strategy process and you're all here and you are all impatient and you want to get the thing done, but what's the personal journey that you're gonna have to go on? ...How do they communicate with others about the complexity? How are they leaning into the complexity of it, not shy away from it? And what does that mean for their definitions of success? (SD_5)

Listening also allows strategic designers to understand the nuances of the organisation's work and build trust with its stakeholders.

Designers set the tone and provide opportunities to discuss possibilities without constraints; this permits 'wild ideas' to emerge. Through discourse, strategic designers facilitate dialogue with key stakeholders and strategy participants to understand their contexts, concerns, visions, and ideas. These conversations are seen as key moments that generate buy-in and shared meaning between participants as they find common pathways and issues to be addressed.

And the art of being a conversation designer was not letting workshops turn into a therapy session. ...sometimes groups naturally fall into a kind of 'this is where we are' and then a brief drops out of it and they move to that 'so this is where we want to be' very naturally. Other times you have to gently move them, but they get stuck. That was the role of the facilitator to navigate, but I think number one was [that] people have to emotionally feel heard and where they are, before you can even dream of opening the box and where you want to be; otherwise, it just sounds like cheerleading. (SD_26)

Strategic designers are often called on to facilitate dialogue to shift clients/participants' mindsets and get them to think boldly and innovatively about the future, moving them away from the safety of what is currently known and done. Strategic designers become masterful enablers, facilitators, and mediators of discourse and communication in group settings.

When you go 'Where are we now?', you want people to kind of really look each other in the eye and go, 'This is where we are now'. When you talk about

challenges and opportunities, is there urgency? Is there excitement? You're really interested in the emotions as intelligence. Then, when you move to 'where we want to be', it's gasoline because people hate imagining things. It's like it's pushed out of us from childhood. So, to actually say to them: 'What does success look like?' That can be really ... be challenging. (SD_26)

Strategic designers see strategy as a socio-relational activity whereby all aspects of the strategy, including an organisation's past and future, must be discussed to develop shared meaning towards why the strategy and new directions are required. Doing so further builds on inputs from broad stakeholder groups about what those future directions might be. In these moments, strategic designers see it as their role to activate deep listening to transfer meanings back into the data collected for consideration about future directions, as it is these same people engaged in the conversation who will also implement the strategy. Strategic designers develop shared meaning through careful facilitation, mediating difficult conversations, stimulating imaginative and inspired conversation, and thus capturing future directions.

Actions of Designers Leading to Different Strategy Approaches

The actions of strategic designers are core to how they approach strategy practice. The principles of practice that we describe above enable these actions by moving them into relational and dynamic approaches as a performative feature of practice. Actions drive how strategists undertake a strategy process and the kind of information and sensemaking that will be leveraged.

Working Holistically – Considering the Whole Picture

Throughout a strategy project, strategic designers seek to 'connect dots', find 'levers for change', and understand the relationships between stakeholders and functions. Strategic designers rely on *visual mapping* approaches and modes of enquiry to make sense of the strategic landscape, prioritising an understanding of the organisational context, the employee landscape, and the external environment, including relevant external stakeholders and customers. Developing systems maps or service journey maps and blueprints might enable visual system mapping.

...using classic system diagrams where you might draw something like their business and you'd be kind of going, 'What we're saying here is you need to boost your learning and development to upskill people you know'. (SD_26)

We note that *the visualisation of mapping* is important as it acts as an enabler to generate input. This links principles of practice for strategic conversations throughout the strategy project as an ongoing activity to inspire engagement and sensemaking. Strategy projects aim to complete a full picture of what is going on. This process helps strategic designers identify gaps, oversights, and opportunities for improvement.

As designers, we're interested in how we use this kind of systemic design in a strategy context because this seems to be where it's needed and there's a recognition in organisations that the world is complex, changing quickly, which needs new models. (SD_11)

A critical perspective is applied to find alternative ways of understanding the problem by mapping. This means that strategic designers do not rely on the client's articulation of the strategic problems – instead, they seek to understand them in full as they present themselves through research.

Then you're starting to look at org design and pushing on and pulling on the constraints that are around a current state to try and understand where you can actually create a new state by changing the system around you...How can we actually change the system rather than just work within the system? (SD_4)

The process of holistic working is iterative and cumulative, developing as a project proceeds. A holistic approach helps to build a basis for understanding and developing opportunities for strategy, to understand how the organisation inhabits its context and how employees work to deliver critical functions concerning the external world.

To aid this, strategic designers adopt a variety of perspectives to build an understanding of the experiences and needs of existing or potential customers, employees, and external stakeholders (key resources, governing bodies, etc.). A strategic designer *can make connections by bringing these voices together*: “A good design-led strategy would be integrating the voices of those more diverse stakeholders and understanding the needs and pain points from multiple perspectives” (SD_19).

Because they [the strategy team] weren't very human-centred or patient-centred in their hospital design, we [the strategic design team] directly influenced the design of the building. We were talking about all of the business requirements alongside all the technology that needed to be in place in order to create that patient experience... and so basically, we went in there and we created strategy for how everything then needed to play out. And that's how it played out. (SD_8)

As they proceed, strategic designers have the final strategy implementation in mind. They bring diverse stakeholders into the conversation of change early, which creates the opportunity to share knowledge, insights, and potential problems and provide input into the strategy itself. This leads to more buy-in and, therefore, potential success.

But there's also aligning with the system, which is leading the project, and then there's winning the hearts and minds of stakeholders. (SD_26)

If all parts associated with delivering a strategic project are connected, the relevant components align to support strategy implementation and transformation within organisations. By taking a holistic view and mapping the strategic opportunities and their related parts, the work serves to de-risk the strategy by identifying gaps and issues before implementation.

I think oftentimes it's thinking about what are trends and what do we see in that broader landscape that actually then links with the human part of it or the customer part of it. Rather than purely 'yes' on a piece of paper, this is a massive market from a dollar point of view. There are other data points that we can bring in, or customer insights that actually confirm that there's an opportunity here. So I think in terms of de-risking the customer side of things that that's definitely something that a strategic designer also brings in. (SD_33)

A holistic perspective drives how strategic designers understand the problem, seek to find opportunities and communicate issues. It also forms the basis for inquiry and determines whose voice must be incorporated in the strategy work and for what reason. Such inputs extend the scope of strategy inquiry and help assess the validity of options and ways to integrate traditional forms of economic analysis with qualitative insights. Further, creating a holistic view means acquiring a deep understanding of the system and the scope of strategic issues through participatory enquiry. Practitioners can build a

robust view of strategy by bringing other participants into the work and gathering views and knowledge. These approaches engender broader buy-in and build confidence that those involved in the strategy can realise the change.

Experimenting to Generate Insights and Test Ideas

Strategic designers experiment to develop insights and test developed concepts and ideas to inform robust opportunities for strategy. The experimentation activities draw heavily on the modality sub-categories to drive forward analysis and synthesis of opportunities. Strategic designers generate material things to encourage strategy participants to engage more deeply with the ideas and provide feedback on developing directions or propositions. Strategic designers think carefully about how materials can be produced to invite participation and make people feel part of the strategy process in a way that is easy to engage with and is productive for strategists.

A big part of design aesthetics is how unfinished you leave something so that someone can participate in. If you put a slide up, you've basically killed it because participants in strategic conversation won't question it. They think it's official. So yeah, we keep it kind of unfinished and through a half-a-day workshop, you would just be kind of going, 'Here's where you are. Here's where you want to get to. What are you going to do?' Okay, and you'd be capturing what they're doing about that. (SD_26)

The motivation for strategic designers here is to create the space to continue to consider what is possible rather than to be set into a 'fixed' visual and conceptual view of the issues at hand. This is so that all participants can continue to generate meaning, refine ideas through experimentation, and validate opportunities through recursive actions between inquiry and synthesis of insights. Prototyping and experimentation become means to move forward, think, and resolve tensions.

So you would also want to be constantly looking at the future state and then looking at the levers going, 'Are they the right levers? Do we have enough levers? Do the levers sit together as a set?' So that would be the kind of ... once you start talking to people, drawing pictures of what they're saying, making notes, and basically just trying to synthesise what they're doing into some kind of representation. (SD_26)

Prototyping strategy means bringing developing aspects of the strategy into conversations with participants. This could be a new product or service idea with customers or specific aspects of strategic change to be shared and co-developed with members of the organisation who will be involved.

I think [it] is very successful, [it] is the whole 'show, don't tell' – 'seeing is believing' – 'prototype is worth 1000 meetings'. I think that is such a great superpower that businesses can take advantage of. Like everyone goes like, 'Yeah, we're gonna do this thing!' and then we all go back to our desks and visualise something different. And I think designers being able to show with visual communication or prototypes or an experience what it's going to be like is incredibly powerful, and I think pushing for that, you know, with the other disciplines and crafts and with strategists is awesome – when people realise when they get it, and they feel it, and it's visceral. And you've got them in their head and their heart and their gut, then it will go forward. (SD_12)

This process enables strategy teams to test known assumptions and reveal new assumptions not yet understood, creating an opportunity to eliminate blind spots across all aspects of the strategy. This is realised through a constant cycle of iteration and reflection throughout a strategy project. The process is aided by visual communication mediums, valued for how well they can facilitate experimentation, attend to gaps, inspire broader and more critical thinking, and invite dialogue (not close it down, as the below account explains).

... [of strategy work], the initial part is to get people to question: 'Does this need to be a PowerPoint?' You know, what am I trying to do here? What's my, what's my goal? Sometimes, a poster might work better or standing up and talking... The simulacra of organised thinking, that is promised by things like PowerPoint is what is its fatal flaw because it makes, you know, it, it encourages weak thinking. (SD_3)

Strategic designers utilise experimentation and recursive inquiry to generate a set of possibilities that can be validated or discounted during strategy work. This is distinctly different from strictly following stage-gate approaches to analysis. Here synthesis drives actions, and meaning is generated as a shared strategy experience (with clients and

within strategy teams). Experimentation is a distinct part of strategy with design because it provides an opportunity to continually test assumptions and move towards a hypothesis rather than beginning with one from the outset.

Elevating Humanity: Considering the Condition of Being Human

Strategic designers focus on understanding the human experience of strategy making as a distinct part of their practice. They are motivated to understand the relational and political dynamics that are playing out in strategy work. Strategic designers seek to understand the needs and desires of relevant stakeholders and customers while also recognising these in view of the context and strategy development.

[] we know that we're logical and we're emotional. And the emotion is more powerful. You know, I think it's important to critique the cult of rational decision making... . Designers, we have a respect for emotion. Because emotion is the basis of aesthetics. Because emotion is the lead in human intellect, despite what traditional economists tell us... emotion engaged in pursuing an object of desire is what a strategy is. (SD_26)

By focusing on human aspects of strategy making, strategic designers account for how that strategy is experienced from a sensorial perspective. This enhances understanding of the issues and attends to the emotional aspects that shape strategy work:

When you talk about the creative approach, it's really kind of have a walk through, observe, you know, experience it, feel it, See it! What have you, with all your senses? You're really using the human brain and senses to pick up on all those things that you may or may not know if that's important or not. But it might click together for later on, using your observational powers to do that in your senses. (S_2)

We find that strategic designers emphasise bringing humanity into the strategy work, which is often economically focused and tends to overlook the human experience of organisational life. Human inputs and perspectives provide rich details about the opportunities for and blockers of strategy.

People forget that humans are messy and there's more to it – so much more than what you see and observe... which is really important in design... People love certainty and familiarity – that makes us feel safe and calm. And so, when it's

uncertain and you're thinking 'Where's this going to land?'... There's that initial sort of cutting down of 'I'm not comfortable here' or 'this is not my brief', so I can't even allow myself to explore it. (SD_20)

Strategic designers seek to understand the dynamics between stakeholders in strategy work, such as customers and employees from the organisation. From this perspective, we found that strategic designers challenge the notion of when and where a strategy stops because they can continually sense change and refine strategic directions, reflecting that strategy is a product of lived experience in organisational life and of those engaging with the organisation's products and services. *"Design begins, continues, and ends with a real person and their real needs"* (S_4). A strategy is then about designing affordances that allow people to engage with the organisation in a specific way; the design of a strategy needs to be usable for the people it is designed for.

There is this saying that where strategy your strategy is only as strong as the amount of people you brought along to create it? And so how you engage big organisations and their stakeholders, and let's say, end users or something into the making of strategy is super important. (SD_21)

Strategic designers bring a human-focused attunement to strategy practice, which elevates the significance of customer and stakeholder voices in the strategy process. In contrast, a traditional strategy process tends to focus on economic analysis and the financial performance of strategic decisions over the human aspects of strategy decisions. When strategic design approaches are followed, a strategy is far more grounded in the central themes that relate to the strategy outcomes from a human perspective – that a strategy will be enabled by people in the organisation, their needs and experiences contribute to how well the strategy will perform. A human perspective brings these considerations into the centre of strategic analysis and decision-making. This, in turn, creates an opportunity to uncover insights critical to the success of a strategy where they wouldn't ordinarily be found. It eliminates inherent bias in managers and strategy-makers, brings stakeholders' needs, desires, and concerns to the fore, and allows strategy practitioners to overcome blockers. When those stakeholder voices are integrated into the strategy-making process, strategy is informed directly by the people it affects. The focus for strategy through this action is that the final strategy will be designed to be a 'usable' and implementable with the stakeholders in mind.

Inspiring and Considering Future Directions

Strategic designers are valued for uncovering possibilities that have not yet been realised or understood. This manifests in how strategic design facilitates conversation with stakeholders, pushing them towards new thinking and asking critical questions, and challenges established conventions of thought around strategic issues.

I've always felt very empowered by the role to be like ... you pay me to ask these difficult questions.... And how can we de-risk this by breaking this down into smaller experiments? Or that's interesting? Is that an assumption? Or is it, how confident are you in that hypothesis? Yeah. So, we have the insights to support that? (SD_48)

This means that strategic designers work in heightened states of ambiguity trusting that the process will lead to solutions through validation versus relying on proving or disproving a hypothesis from the outset. This is not to say strategic designers do not consider feasibility and viability, which they see brought in by strategists, but they prefer to suspend judgement for as long as possible or until the analysis and synthesis of insights prove otherwise.

[We] think of strategy as a set of choices around your aspiration – your playing field, your sources of advantage, your capabilities, and your systems, and that you can productively use the tools of design, the mindsets of design to create, build out, test, and scale those choices. That you are better off using the tools of design than not in the creation of a forward-looking strategy. And the reason that is distinct is there are many organisations, that treat strategy as a purely analytical exercise where you take the last strategy and you say, what did we do? What did we not do? How do we update this strategy? And the strategy isn't choiceful [] That's not what we do. We are really thinking about choices for future fitness – choices that are about the fundamental future of the business, the category, the function, the brand, the whatever it is that we're working on. (S_4)

Strategic designers draw on the human aspects of strategy work where more expansive thinking is required to inspire or stimulate conversations that would not ordinarily occur. They do this by *creating exploratory workshop activities* and bringing in

different kinds of content, materials, or people to stimulate new cognitive frames and challenge participants in strategy making to imagine what could be possible.

Many participants discussed the question ‘What would need to be true for this to work?’ in relation to strategy as one way to facilitate a more exploratory discussion and research. This approach requires additional research and inquiry, which is not represented in linear approaches to strategy. Additionally, strategic designers adopt an ethos that encourages creativity, enlivens the experience of strategy through fun activities and games, and provides space for participants in strategy to experiment with new ways of thinking about their organisation and where they might go next. This is important because organisations sometimes get stuck in current models of thinking and need to be introduced to new perspectives to foster more radical and future-focussed strategy discussions.

[Design] influences how I run projects; [the] experiences that you put the team through to enable them to kind of do their best. [] Small things like creative morning sessions to get them thinking in the right space, right before the day starts. We do little activities to push, push the thinking, even just fun things to kind of shake it up a bit. And then again, similar types of experiences for the clients so that one day they're performing as well as they can and being creative themselves, as well as like shaking them outside of a business-as-usual. (SD_23)

We have learned that strategic designers take novel approaches to inspire new ways of thinking and imagining future possibilities for strategy making. This is facilitated through conversations, critical questioning and clever workshop activities and experiences.

Responding to What Emerges – Taking Creative Leaps Towards Action

Strategy with design is all about developing momentum through the act of designing strategy. This means that work develops as insights emerge, directions start to reveal themselves, and assessments can then be made about what and how that affects the strategy at hand. With this approach to strategy, faith is placed in the strategy emerging from programs of work, which acknowledges possibly high levels of ambiguity. This is the most contested aspect of design and the feature that makes design difficult to

replicate as the processes and decisions on what to do next are entirely informed by the specifics of the context and sites of strategy at hand.

You're trusting your team and their skills; you're trusting that you will get through the ambiguity. Our work is always steeped in ambiguity. The problem itself, the solution to the problem, sometimes unfortunately, the process we're going to follow to get to the solution. And so, it requires a certain degree of confidence that you're going to be able to get through that and that should be the responsibility of the guides to help set up the team to have that trust and that confidence when we do it well when it works. (S_4)

These micro-moments of decision-making are welcomed by suspending judgement, thinking through aspects of the problem in view of the whole of its parts, and moving between what is known and yet to be discovered. Underpinning this action is the ability to move through projects and let the prospective strategy form as it is being realised through validation and testing, experimentations, and exploratory discourse. Small judgements move the strategy towards prototyping or developing further research activities based on what has been discovered – here design abduction is driving and forming a sense of what needs to be resolved next.

I choose a model of mapping based on the question that the client is trying to answer. That we can overlay what we think about the choices. Can we overlay the choices on this? These are all the parts there and then it's kind of an iterative process of taking out things that we're actually not going to be talking about and only leaving in there what is part of the narrative, etc. (SD_23)

And then finally, um, testing to learn, not testing, just to validate or testing right at the very end, but really building a failure mindset, a testing and learning mindset into your whole methodology throughout so that you are prototyping, failing, learning, getting better consistently. (SD_6)

Strategic designers tend to form smaller, malleable hypotheses that they take forward to test and refine. These are not the same as the hypotheses set at the start in traditional strategy approaches. Rather, these are curious questions to inspire further enquiry. This distinction is important as hypotheses have been used to describe design processes before, but we find that these operate in a different way to drive strategy projects

forward. They take an intuitive sense of reflection and critically question the developing synthesis and interplay with the other actions to arrive at a conclusion. This process is like resolving a jigsaw puzzle rather than following a set of predetermined instructions.

So that would be, once you start talking to people, drawing pictures of what they're saying, making notes, and basically just trying to synthesise what they're doing into some kind of representation. (SD_26)

By responding to what emerges, practitioners can take creative leaps utilising the inferences they find in their synthesis. *“So because you're taking leaps, and you're intentionally staying, like, in the creative space and staying safe, you can then make those leaps, then you've got to kind of catch up and try to de-risk” (SD_1).* The recursive motion between taking leaps and proving or disproving options is an ongoing process of designing in strategy. Strategic designers exhaust their options through this process, by assessing gaps and pursuing unanswered questions. Finally, they land on key insights from the work, which then progresses strategy work around central ideas, themes, and insights that inform the choices or levers for change. *“I couldn't articulate how I get to the insight. But it just arises, and I know in my body when the right insight has emerged. It's like I just get this feeling of groundedness and, like, that's the thing” (SD_18).*

We find that strategic designers have a high degree of comfort with and confidence in their process of exploration in strategy. They trust it will lead to significant and important insights or decision points in strategy. By raising hunches and following their intuition they develop working hypotheses along the way. This is in contrast to traditional methods of strategy, which seek to identify a hypothesis from the outset.

Strategy-in-Action: A Design Practice for Emergent Strategy

In developing our theoretical model of strategy-in-action, we asked how this developing grounded theory relates to existing ideas and theoretical contributions in both the strategy and design discourses (Charmaz, 2006). We find that strategy-in-action parallels the ideas presented in emergent strategy. In emergent strategy, strategists or managers form strategy by responding to what emerges during daily business; they form strategy as a learning experience. *“Emergent strategy itself implies learning what works, taking one action at a time in search for that viable pattern or consistency” (Mintzberg*

& Waters, 1985, p. 271). The idea, as Mintzberg and Waters (1985) lay it out, is that organisations open up strategy processes to create opportunities for ‘strategic learning’ so that it can be adapted to environmental changes while also “taking one action at a time in search for that viable pattern or consistency” (p.271). Strategy-in-action brings into focus how design practices can open up strategy to broader sets of conditions and, therefore, analysis, as it is more traditionally conceived. Equally, strategy-in-action shows that when strategic designers are engaged in strategy implementation, strategy can be continuously adapted, thus opening up the practice of strategy as an ongoing action for design. We, therefore, propose that strategy-in-action contributes and expands the discourse on emergent strategy and provides an example of how strategists and managers may become more emergent in their approaches by including strategic designers and design practices (Downs et al., 2003). This further builds on proposals seeking to integrate design with emergent strategy approaches (Fixson & Rao, 2014; Simeone, 2020; Simeone & D’Ippolito, 2022) and the opportunity for design in strategy (Knight et al., 2020; Liedtka, 2000).

We argue that design actions and principles create greater opportunities to reveal emergent strategies because designers work to create things in relation to their intended use (Krippendorff, 1989) and have sophisticated learning approaches that are driven by reflection in and on their actions (Schön, 1994). The designer’s actions are embodied, and the experience of designing assumes a process of discovery and creative experimentation that is realised through production and experimentation (Rylander Eklund et al., 2022). As Nelson and Stolterman (2012) claim, design “inquiry into the ideal is not only a form of reflective, abstract, or conceptual inquiry but also action oriented...as a focus of inquiry into what is desirable, is essential to the ultimate design goal of creating the not-yet-existing” (p.35). In emergent strategies, the articulation of strategy results from what could not be understood as a ‘pre-planned’ strategy activity. Therefore, a strategy is more effective if it can adapt to what an organisation faces in the present rather than what it has faced in the past.

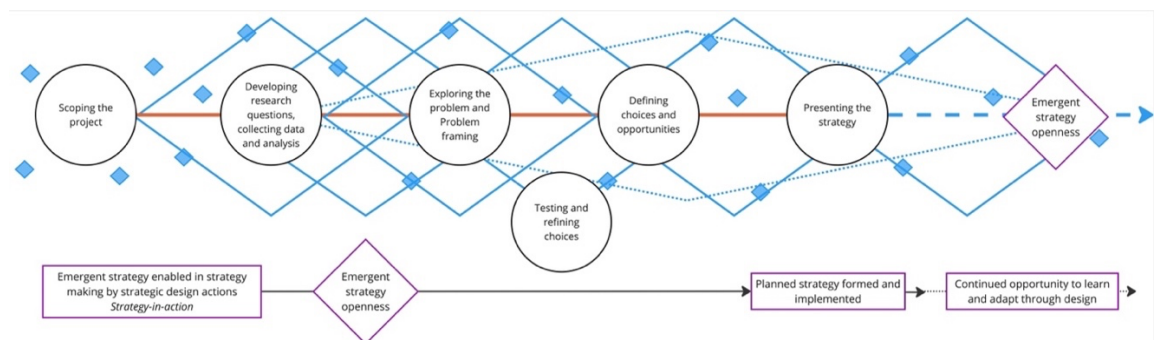
Paying attention to Mintzberg and Waters’s (1985) argument that effective strategy requires both the ability to “direct strategically, but also to be able to ‘respond to an unfolding pattern of action’” (pp. 271–272), we propose that strategy-in-action can live within traditional approaches to strategy that are designed to contain or control strategic directions but that their applications create an opportunity to sense for change as the

implementation of a strategy will encounter unexpected issues (Mintzberg, 1979). Strategy-in-action, therefore, provides an intentional placement of design that can provide timely input of data and insights to make sense of what is occurring presently and build responsive approaches as a matter of living out a strategy.

We, therefore, propose that strategy-in-action is an emergent strategy approach because it follows the proposition that strategy can emerge with the utilisation of current and inquiry-led data sets. *Understanding the context through enquiry* provides the inputs that inform how a strategy might best form or change. The data generated from gaining a deep *understanding of context* can then be validated through *experimentation* to create new strategic opportunities (Lafley & Martin, 2013; Martin, 2009) while also developing *shared knowledge* between participants of strategy. Such strategy-in-action draws on design approaches to create exploratory moments that facilitate abduction (Carr et al., 2004; Dorst, 2015) and sense-making approaches, attuned to and integrating insights into the strategy process productively (Balogun et al., 2014; Kolko, 2010; Rylander Eklund et al., 2022). Strategy, therefore, can attune to not only what is emerging but also afford the opportunity to realise more innovative strategy directions as design facilitates creative, future-focused, imaginative, and generative activities (Carlopio, 2010; Fixson & Rao, 2014; Stigliani & Ravasi, 2018). With the above, we find that designers consider activities and conversations that are *inspiring* and create the environment to imagine and *consider future directions*.

Figure 16

Strategy-in-Action as an Emergent Strategy Practice



We also propose that strategy-in-action extends the ideas of emergent strategy because the underlying actions are motivated by design. Design is concerned with making things that people interact with, and designers play close attention to what needs to be afforded by a new design – how it will be used (Krippendorff, 1989). Strategy-in-action,

therefore, provides a model of practice that can support emergent strategies to afford and attend to conditions and towards desired outcomes (Chia & Holt, 2009). We see that the task of strategy is enhanced by tuning into and *elevating humanity* as part of strategy work, bringing forward actions that invite participation and attend to the human condition, such as emotions, aspirations, learning, and conflict.

Strategy-in-action allows participants of strategy to be the navigators and enablers of strategy. Therefore, the design of the strategy must consider how suitable the strategy is to their work experience and knowledge of the underlying rules. An emergent strategy assumes that practitioners have the ability to ‘cope’ with changing circumstances (Chia & Holt, 2006). Through strategy-in-action, strategic designers bring implementation considerations into the strategy design, ‘closing the loop’ in the strategy process. Thus, Strategy-in-action provides an avenue to recognise the organisation’s tacit knowledge while sensing for environmental changes. Further, strategy-in-action enables the co-creation of strategic pathways that can be implemented while developing buy-in simultaneously as an embedded experience of strategy in organisations (Ackermann et al., 2024; Carr et al., 2004). We see that this is enabled through *experimentation and developing shared knowledge* with participants, where facilitators of strategic conversations *generate shared meaning through dialogue*.

We also know that emergent strategy involves engaging broad stakeholder groups in dealing with the complexity of the moving parts of a lived system (Ackermann et al., 2024; Daymond et al., 2024) and in transferring the shared vision as an exercise of learning (Stacey, 1993, 2000). To fully grasp the complexity, strategic designers seek to map complexities, gather inputs through *inquiry* with participants, and *generate shared meaning* from the current state and connections between stakeholders *through dialogue*. “Emergent models [of strategy] are open system models, which assume equifinality, unforeseen opportunity and challenges, and the usefulness of constant monitoring of feedback” (Carr et al., 2004, p. 87). Further, emergent strategy recognises that the competitive environment is complex and ambiguous and that numerous parts must be considered in strategy work (Downs et al., 2003). Strategy-in-action provides a platform from which to make connections between various participants to support learning and reflection activities. It acknowledges that the organisation operates in a complex system and that enquiry is necessary to understand the system and problem space holistically to inform more interconnected and considered choices. With the above, we see the actions

of considering the whole picture as driving strategy projects forward by paying attention to the intricacies and potential influencing factors that exist within the broader system.

Chia and Holt (2009) proposed that emergent strategy is like wayfinding, as strategists learn to navigate the terrain rather than follow a pre-determined map as in traditional, pre-planned strategy. “Each of us cannot decide what to notice; our active engagement with our wider environment is one of affordance (Chia & Holt, 2009, p. 171). Strategy-in-action, therefore, provides the scaffold of actions from which a strategist and strategy practitioner can navigate the emergent terrain of strategy effectively and afford the best route available at the time. This is achieved by paying attention to *and responding to* what *emerges in strategy*, which influences and informs what steps are undertaken next in the strategy work.

We point out, however, that strategy has not adopted emergence and propose an alternative approach to the rationalistic logic of means-end strategy (Chia & Holt, 2023). Strategy-in-action brings forward designerly approaches to knowledge work that extend conventional rationalistic conventions of practice and, in doing so, highlights emergent and creative possibilities (Rylander, 2009). It provides an alternative to the “scientific method and its technical expression” in strategy (Chia & Holt, 2009, p. 208), otherwise known as technical rationality (Schön, 1983). Traditional rationalistic approaches to strategy continue to re-confirm linear approaches (Carr et al., 2004; Downs et al., 2003), which we know, in relation to design studies in management, are hard to break down without careful models or professional guidance (Carlgren & BenMahmoud-Jouini, 2021; Johansson-Sköldberg et al., 2013; Micheli et al., 2019). Therefore, strategy-in-action contributes a model of strategy practice that elevates the professional design practices of strategic design to a legitimate approach that moves strategy into a more dynamic, sensing, and innovative space (Kolko, 2010; Simeone, 2020; Simeone & D’Ippolito, 2022; Stevens & Moultrie, 2011). However, in this model, strategic designers bring their developing skills into strategy work (Calabretta & Gemser, 2017; Dorst & Watson, 2023), which leads to a very different style into strategy practice (Rylander Eklund et al., 2022; Tonkinwise, 2011).

Further, we add to emergent strategy by integrating the opportunity and potential of aesthetics, making and creating. Mintzberg (1987) likens emergent strategy to the craft and art of pottery in that it brings the knowledge of the craft and materials into forming.

Strategy-in-action elevates the significance of material artefacts and making in strategy to support the experimentation and development of shared meaning in gathering insights and realising emergent and deliberate strategies on balance (Mintzberg & Waters, 1985). Designers bring their craft of visualisation and making tangible to create usable strategies that people can readily understand and attach to (Eppler & Platts, 2009; Krippendorff, 1989; Stigliani & Ravasi, 2018). We find the *production of material things* drives strategy into action and enables emergent strategy.

We propose that strategy-in-action represents not only a new placement of design practice in the knowledge work of systems, organisations, and environments (Buchanan, 1990, 1992, 2001; Lee, 2024) but also a new kind of strategy practice that embeds design practices into the heart of strategy, resulting in the articulation of an emergent practice for strategy through design.

Discussion

This paper explores how strategic designers and strategists undertake their work to understand the differences and how design practices shape strategy. By undertaking rich interviews with both strategists and strategic designers, we have been able to compare and contrast accounts of practices and experiences of strategy to explain the significance of design in strategy when strategic designers are involved in the work. In our articulation of *strategy-in-action*, we find that strategic designers bring their skills into strategy, which, as a result, expands the scope of strategy research and the ‘sensing’ capabilities within strategy work (Kolko, 2010; Teece, 2007). Further, creating distinctive experiences invites broader stakeholder participation to provide inputs into strategy and also creates greater opportunities for buy-in (Daymond et al., 2024; Liedtka, 2020; van der Bijl-Brouwer & Dorst, 2017).

Strategic designers bring in actions and principles of practice that pay close attention to how experiences, material things, emotions (the human condition), and conversations shape strategy (Balogun et al., 2014; Knight et al., 2024; Krippendorff, 1989; Stevens, 2013). Strategic designers are motivated to design a usable and implementable strategy, blurring the lines between strategy formulation and implementation rather than expanding the opportunities to continue to sense for a change as an ongoing experience of designing (Mintzberg, 1979, 1987; Nelson & Stolterman, 2012; Rylander Eklund et

al., 2022). Further, the designer being attuned to uncovering insights during strategy work moves hypothesis setting from a task undertaken at the beginning of the strategy process to one that generates momentum in strategy work. Hypothesis setting is a process of framing and reframing the central issues of strategy that continues to drive questions and experimentation to arrive at viable propositions (Paton & Dorst, 2011; Schön, 1994). Thus, it challenges how much a strategist needs to know about the solution from the beginning of a project, which can limit strategic opportunities and embed assumptions and biases (Di Stefano et al., 2015; Liedtka, 2015; Van Den Bosch et al., 2005).

Strategy-in-action also demonstrates how strategic designers elevate strategy experiences by using material objects and spaces (Eppler & Platts, 2009; Le & Spee, 2015; Stevens, 2013; Stigliani & Ravasi, 2018; Werle & Seidl, 2015). Thus, it reveals the significance of ‘experience’ for participants in strategy, how ‘meaning’ and buy-in are generated through artefacts as communication devices and carefully designed conversations, which provides opportunities for strategy to gain momentum and become more implementable as it is more clearly understood and purpose-fit (Krippendorff, 1989; Liedtka & Kaplan, 2019).

We identify that strategic designers bring a different style of practice (Tonkinwise, 2011) into strategy, which transcends current conceptions of ‘design thinking’ in strategy work (Jevnaker, 2000; Knight et al., 2020; Magistretti et al., 2021; Simeone, 2020). This deepens our understanding of the proposals put forward about design being a helpful practice in strategy work (Carlopio, 2010; Jevnaker, 2000; Liedtka, 2000; Simeone, 2020; Simeone & D’Ippolito, 2022) as we describe how strategic design practices work in relation to strategists as an embodied experience when doing the work (Rylander Eklund et al., 2022). This contributes towards explaining what strategic design practice is and the significance of designers as practitioners in strategy work (Calabretta & Gemser, 2017; Dorst & Watson, 2023; Simeone, 2020; Stevens & Moultrie, 2011). This study also contributes to the critique of design thinking as being an activity of the mind overlooking the interconnectedness of thinking and doing in design work and the specialised skills that designers learn to bring the embodied experience of design into practice (Kimbell, 2011, 2012).

Strategy-in-action demonstrates that the embodied experiences of strategic designers bring about a different quality of strategy *through* the experiences of strategy from project start to the very end. Therefore, it clarifies designers' actions and principles of design practice and the limitations of 'design thinking' as a paradigm of design practice in strategy work (Knight et al., 2020; Rylander Eklund et al., 2022). This is important because, as the development of strategic design suggests, strategic designers contribute something important to strategy work – a continuation of design in strategy practice without designers may dilute the opportunity of design in strategy (Cross, 2023). Further studies may continue to investigate the dynamic between practitioner types, with a focus on the dispositions, styles of practice, and issues of identity in undertaking strategy work (Rylander, 2009; Rylander Eklund et al., 2022; Tonkinwise, 2011; Whittington et al., 2011). This is to account for the realisation that both strategists and designers come into their work with ideas about how a strategy project should look and unfold. Therefore, this is also to say that a strategist and strategic designer develop their knowledge about what strategy practices should constitute and the practices that follow from their specific learning experiences and education. This, as we found in our comparison between practitioners, impacts the possible integration of design in strategy as attitudes, knowledge, and conventions shape practice (Rouleau & Cloutier, 2022). Further attitudes about what consists of knowledge work shape how practitioners value and therefore persist with trying different ways of working – or even accepting strategic designers into the strategy process (Rylander, 2009). Therefore, future research may seek to understand the tensions and blockers associated with bringing strategic design practices and practitioners into strategy work and how perception and types of knowledge shapes the potential for what a strategy process can be.

We also contribute strategy-in-action as an articulation of an emergent strategy practice (Mintzberg, 1979, 1987). The positioning of strategy-in-action as an emergent practice opens up further discussion about the agency of other practitioners in strategy work, following developments in 'open strategy' discourse (Belmondo & Sargis-Roussel, 2023; Hautz et al., 2017; Splitter et al., 2023; Whittington et al., 2011). Strategy-in-action places designers as agents of strategy work; in addition to co-constructing strategy with strategists and other stakeholders (Calabretta & Gemser, 2017), they are triggering a different type of strategy process that changes how strategy work is planned for and conceived. This requires challenging practice conventions and an embedded

understanding of how strategy is done, thus challenging a practitioner's identity while doing work (van Grinsven et al., 2020). Therefore, future research may consider how strategic design practices transform strategy practices and de-centre strategists as primary agents of strategy work (Knight et al., 2020).

Conclusion

We present strategy-in-action to explain what design brings to strategy practice and the key features of designers' expertise in strategy work. We argue that strategy-in-action offers a different approach to strategy because the actions and principles of practice allow practitioners to navigate the strategy process differently. We first describe the polarities of practices to show how strategic design practitioners undertake their work in strategy compared to strategists and what the main differences are and how these change strategy work. We then explained in what ways strategic designers bring a different approach to strategy and presented the actions and principles of practices which lead to an emergent strategy practice.

We identify that a dynamic combination of actions; considering the whole picture, experimenting to develop shared knowledge, elevating humanity, inspiring and considering future directions, and responding to what emerges, underpinned by principles of practice: understanding the context through enquiry, making things and designing experiences, generating shared meaning through dialogue bring about dynamic and adaptable practices into strategy which enable emergent and responsive approaches to strategy. While the emergent strategy has been discussed as an approach to strategy that recognises the coping strategies of managers in navigating the day-to-day decision making in business, we see the potential for strategy-in-action to bring forward emergent strategy approaches that drive more innovative and future-focused strategies. Such an approach also becomes incredibly relevant today, where businesses are facing mass disruption and have a need to create a society-serving strategy that extends the conception of strategy to broader stakeholder groups and the consideration of more complex data sets and conversations. Strategy-in-action provides strategy with additional means to explore what could be possible, invites broader participation facilitated in productive ways, and the opportunity to de-risk strategy choices by taking a testing and learning mindset into the formation of strategy work.

We contribute to the design discourse by explaining how designers deal with the design of organisations through strategy work, as a newly forming type of design practice. Strategic design, therefore, presents a distinct disciplinary placement for design(ers) in the crafting of strategy. Finally, we contribute to strategy discourse by describing an approach to strategy work that enables highly participatory strategy conversations and actions that support emergent approaches to strategy development.

We hope this study inspires managers and strategists to experiment with design and collaborate with strategic designer practitioners to create more future-fit and human-sensitive strategies that drive organisational success for the betterment of organisations and that of broader society.

Chapter 5. Discussion and Contributions

Research Summary

This PhD study is motivated by the developing interest and discourse exploring design approaches for strategy work. The emergence of strategic design practice, where designers co-develop strategy (Calabretta & Gemser, 2017; Simeone & D'Ippolito, 2022) and strategists use design thinking, (Knight et al., 2020; Liedtka & Kaplan, 2019) requires attention to understand how it shapes strategy practices and practitioners' roles in undertaking strategy work. In addition, research exploring design in strategy is fragmented, with studies distributed across the design, strategy, management, and design thinking discourse (Johansson & Woodilla, 2009; Simeone, 2020). As a result, contributions either overlook design or design strategy practitioners' involvement (Knight et al., 2020; Liedtka & Kaplan, 2019) or do not effectively see the topic as a pluralistic development that transcends design and management studies across the related practice paradigms in the design, management, design thinking, and strategy discourses (Johansson-Sköldberg et al., 2013; Kimbell, 2012; Micheli et al., 2018; Verganti et al., 2021). This doctoral research takes a broad view on the topic to explore the role of strategic design by asking: What is the role of design for strategy? Further questions include:

1. What are the practices of strategic design, and how do they relate to traditional strategy practices?
2. What are the conditions for design practice in strategy practice – how does design come to be in strategy practice?
3. What is the value of adopting design in strategy? Are there distinct features brought in by design practice?
4. How do practitioners leverage design approaches in strategy contexts? Are there implications for practitioners as a result?

I present a comprehensive articulation of the role of design in strategy by developing grounded theory contributions from the *narratives of practice* (Rouleau, 2010) shared by strategic designers and strategists. Practitioner accounts revealed rich descriptions of how design is used in strategy, including different experiences, applications, and developments of practice over time. This study features the findings from 50 interviews,

32 with strategic designers and 18 with strategists. In addition, two focus groups were conducted with 8 practitioners (4 in each focus group) from strategic design consulting.

Paper 1 presents a contextual background for the study to locate the current issues and conversations about design and strategy within the existing discourse (Birks & Mills, 2022). Following a grounded theory approach, this literature review reveals the developing sensitisation of the lead researcher through advanced coding stages and theoretical integration (Birks & Mills, 2022; Charmaz, 2006; Giles et al., 2013). Rather than imposing a particular theory or perspective in this study, the literature review sets the scene and anchors the research findings developed throughout the study (Dunne, 2011).

Paper 1 presents the literature that explores how design has been conceptualised and integrated into strategy discourse. This literature review maps a discourse landscape across the theoretical fields of design, management, design thinking, and strategy. The conceptual review traces the development of design (*thinking*) in strategy over time and the related studies that align design with strategy. It captures the evolution of design practice, from traditional applications of designing *signs and symbols, things, and actions*, and moving towards *thoughts* (Buchanan, 1992, p. 10). It further captures how design has evolved into placements concerned with designing systems and organisations that include future visions and strategy (Buchanan, 1992, 2015; Lee, 2024). The review also highlights complications with how the term ‘design’ is used in strategy discourse. I find that design is often used to describe traditional strategy approaches that seek to ‘control and plan’ strategy as a top-down activity driven by external environment analysis (Chia & Holt, 2009; Mintzberg, 1990). This is unfortunate as alternative perspectives of strategy could be advanced by a more accurate use of the term ‘design’ (e.g., Buchanan, 2001; Nelson & Stolterman, 2012; Schön, 1983) to capture descriptions of strategy as being a more inclusive, adaptive style of strategy work driven by synthesis and creativity (Mintzberg, 1987, 1994, 2022).

Despite this misuse of the term ‘design’, ‘design thinking’ has been proposed as a metaphor for strategists to advance strategy to become “*more widely participative, more dialogue-based, issue-driven...and conflict using... all aimed at invention and learning rather than control*” (Liedtka, 2000, p. 28).

This proposition follows a broader trend in the management discourse that presents ‘design thinking’ as an extrapolated form of design practices for non-designers to innovate within organisations in aid of growth (Brown & Katz, 2009; Liedtka & Ogilvie, 2011; Martin, 2009). Although there has been much development in how design thinking is used and discussed in the literature (Daymond & Knight, 2023; Micheli et al., 2019; Verganti et al., 2021), its explicit use in strategy by strategists is still developing (Knight et al., 2020). So too, is the disciplinary practice of strategic design, which represents how designers’ roles have emerged to become more strategic in organisations and contribute to co-developing strategy (Calabretta & Gemser, 2017).

Regardless of the research that proposes synergies and overlaps between practice types (Fixson & Rao, 2014; Simeone, 2020; Stevens & Moultrie, 2011), only a few studies consider the development in relation to both strategy and strategic design practices (Simeone & D’Ippolito, 2022). Therefore, many aspects remain to be understood about the intersection of design practice and strategy practice, how practitioners adopt design in strategy, and how design is changing strategy practice.

Notwithstanding the gap in discourse, future studies that pay closer attention to the content across research domains may prove to be fruitful in establishing either the relevancy between design and strategy or further revealing the synergies between practice. These domains are design management and design strategy (Roberts, 2023), strategic design practice (Auernhammer, 2024; Calabretta & Gemser, 2017; Manzini & Vezzoli, 2003), design thinking in strategy applied by strategists (Knight et al., 2020; Liedtka & Kaplan, 2019), and the material aspects of design objects and materials in strategy work (Eppler & Platts, 2009; Kaplan, 2011; Knight et al., 2018b; Paroutis & Knight, 2019; Simeone & D’Ippolito, 2022; Stigliani & Ravasi, 2018). Despite existing synergies, researchers do not embrace well the pluralistic nature of the practice and discourse (Micheli et al., 2019). Future research would benefit from focusing on how design is being used in practice rather than aligning to one particular paradigm of practice or a single epistemological view as presented by the theoretical domains of discourse (design, management, design thinking, and/or strategy) (Johansson-Sköldberg et al., 2013).

Paper 2 explains what roles design plays in strategy work and presents the five dynamic roles of design in strategy:

- Experiencing – to experience strategy as a design process
- Extending – to experience design as the application of a design thinking method and tool
- Enhancing – as a dynamic co-construction of design practice through the collaboration and negotiation of strategic designers with strategists,
- Informative – as a resource or input to inform aspects of strategy
- Generative – as a process that generates strategic insights as a by-product of design teams' project work.

I explain the significance of the five roles by identifying that they each demonstrate how design has been translated through mechanisms that lead them to be used in a particular way. As a result, the five roles represent “set[s] of dynamic and mutually influencing processes” (Wedlin & Sahlin, 2017, p.103) that create distinct *ecologies of design in strategy translation*. The ecologies capture how design applications in strategy are influenced by the organisational setting and the actors involved in the work.

As dynamic sets of translation, each role is characterised by the mechanisms driving translation, such as:

- Actions – how the practices are undertaken
- Actors – who is involved in the work
- Complex interactions and relations – how actors work together and negotiate the use of ideas
- Organisational settings/contexts – as influenced by established norms and conventions of practice and expectations about how to work
- Circulation of ideas – capturing how ideas are carried across contexts and
- Prototypes and templates – capturing how ideas are informed and communicated in specific contexts.

By presenting the dynamic roles of design in strategy as ecologies of design in strategy translation, I have explained why design appears in various ways due to the translation mechanisms. This advances the discourse on design in strategy to show that design appears in multiple ways across contexts and delivers a different quality and outcome of design in each role configuration (Nielsen et al., 2022). Further, design is being translated multi-directionally as both strategists and strategic designers independently

and collaboratively reshape strategy practices through experimentation with design (Nielsen et al., 2022; Westney & Piekkari, 2020). Paper 2 establishes a core articulation of design in strategy as a dynamic and evolving phenomenon that involves both strategic designers and strategists in a variety of contextual configurations.

Paper 3 progresses the exploration of design in strategy by describing *how* strategic designers work in strategy and what impact this has on strategy practice. First, I compare strategists' and strategic designers' narratives of practice to reveal polarities of practice, outlining the differences between the most traditional forms of strategy practice and those of strategic design. As a result, I find that strategic designers navigate strategy differently from traditional strategists as they seek to explore the opportunities for strategy in more open, iterative, and reflective ways. Traditional strategy practices tend to be hypothesis-led, driving narrower research scopes and analysis towards proving or disproving strategic direction which are defined from the project's outset. In contrast, strategic designers see the process as *hypothesis forming* and that research and exploration will lead to a hypothesis that can be tested. I describe the differences between strategy and design by focusing on how strategic design practice is applied to strategy.

Because strategic design actions and principles unfold through the work and therefore determine how a strategy project unfolds, I find that strategy is formed through action, which I categorise as *strategy-in-action*. Strategy-in-action is driven by five set of actions and three underpinning principles of practice. Strategy-in-action constitutes the actions;

- Considering the whole picture: working holistically.
- Experimenting to develop shared knowledge and recursively working through possibilities.
- Elevating humanity: considering the condition of being human;
- Inspiring and considering future directions: disrupting conventions;
- responding to what emerges: taking creative leaps towards action.

Distinct principles of practice guide these:

- Understanding the context through enquiry - exploring the topic dynamically,

- Making things and designing experiences - materialisation and bringing ideas into being, and
- Generating shared meaning through dialogue, and communicating with others

Together, these three principles drive the actions above to create a more explorative, immersive, experimental, holistic and human-sensitised experience of strategy.

Paper 3 further locates this phenomenon in relation to emergent strategy theory (Chia & Holt, 2009; Mintzberg, 1979; Mintzberg & Waters, 1985) to highlight that strategic designers bring forward a type of emergent strategy practice, which is distinct from traditional forms of strategy. Emergent strategy embraces learning and reflection to allow strategy and organisations to adapt should any insights arise through the course of day-to-day business operations and market changes that suggest a different move or response is required (Mintzberg & Waters, 1985). *Strategy-in-action* proposes that this style of reflection and iteration can happen within the strategy-making process and move forward into its implementation as the strategic designer's approach is geared to discovery and sense-making (Kolko, 2010) and towards designs that can be effectively used (Krippendorff, 1989). Strategy-in-action presents an emergent approach to strategy practice, challenging the notion that strategists or managers are the primary producers of strategy (Belmondo & Sargis-Roussel, 2023) and that all strategy components must be planned for in advance (Chia & Holt, 2023).

The three papers contribute a rich collection of data and insights into research on design in strategy by clarifying the ways in which design practices are being utilised in strategy, the placement of strategic designers in relation to this work and how it is being used by and with strategists. Further, these findings demonstrate that both strategic designers and strategists are involved in strategy in various ways and that the design practices in strategy are developing with the involvement of designers and/or the adoption of design thinking approaches. As ideas of design are being translated into strategy, strategy practices are being re-shaped and reformed. This represents a reconceptualisation of strategy practice due to strategic designers' involvement in strategy work and through applications of design thinking by strategists. It also provides an account of how designers' extended 'placements' in design are evolving from traditional design applications, such as organisations and systems (Buchanan, 1990, 1992, 2001; Lee, 2024). As a result, this study expands the perspective and

understanding of strategy with design as a developing form of strategy practice. It introduces a new type of design practice used within strategy development. It provides numerous avenues for further research, bringing together progressive and integrated perspectives that recognise strategy practices with designers' involvement and design thinking as a limited but practice-reshaping force in strategy practice. In summary, this study demonstrates that strategic designers and strategists shape strategy practices dynamically through experimentation with design in strategy work.

Theoretical Contributions and Future Research

The three papers presented in this thesis contribute to management and strategy, design, and design thinking discourse. Firstly, this study contributes to research on management and design thinking by explaining how design thinking is used to innovate strategic directions through strategy work (Magistretti et al., 2021). The findings show that the popularisation of design thinking in management has led to strategists experimenting with design thinking and strategic designers getting involved in strategy work. This study provides a practice-based account reinvigorating the discourse that has been proposing for some years now that design approaches would be useful for strategy work (Carlopio, 2010; Liedtka, 2000; Liedtka & Kaplan, 2019). Importantly, however, this study demonstrates that strategic designers are dynamically interwoven with strategy work, as demonstrated by the roles of design in strategy (Paper 2). As this is the case, we highlight how future research incorporates strategic designers in studies that focus on design thinking adoption for strategists, in a similar vein to Kimbell's (2011, 2012) proposition in their critique of design thinking. It is therefore important that future research examines strategic designers' support in developing design thinking skills or their peripheral involvement in strategy work, which may be influencing the way strategy practices unfold (Calabretta et al., 2016; Calabretta & Gemser, 2017).

This follows previous studies where designers have been seen to support the adoption and development of design thinking skills in product and service innovation (Carlgren, Rauth, et al., 2016; Liedtka, 2020; Micheli et al., 2018) – but the developments in the discourse move away from designers to see design thinking as a translation of design practices by non-traditional designers in management contexts (Pollach, 2021; Verganti et al., 2021). This study is representative of this trend and highlights how design thinking is a limited application of design practice as a model, method, and tool as its

focus is on thinking (e.g. Liedtka et al., 2013), compared with strategic designers' contributions, who see strategy as a design process in an embodied form (Cross, 2023; Kimbell, 2011, 2012; Rylander Eklund et al., 2022). The distinction is important because, from a translation theory perspective, when ideas are translated into different contexts, they are edited, adapted, and imitated in specific ways that change their use and meaning (Czarniawska & Joerges, 1996). Further, traditional rational approaches tend to prevail over new ideas over time. Where new ideas are being adapted further from the source of origin (in this case, strategic designers and design practice), their meaning can be diluted or lost (Wedlin & Sahlin, 2017; Westney & Piekari, 2020). Therefore, if researchers only focus on strategists who adopt design thinking, they may be stepping into research sites where design thinking is either being utilised effectively or not very well at all – and that level of competence is hard to assess without examining how design thinking knowledge has been developed for strategy use in the first instance (Kimbell, 2012; Rouleau & Cloutier, 2022).

To that end, this study contributes towards exploring strategic practice centring on the experience and embodied nature of design practice as distinct from the cognitivism perspective of design thinking (Rylander Eklund et al., 2022). Strategy-in-action presents an embodied experience of design practice as a 'sensitivity' developed through studio cultures of design education, leading to a particular style of practice distinct from rational management approaches (Rylander, 2009; Tonkinwise, 2011). Paper 3 may become a platform for further studies that seek to unpack design sensitivities as a form of practice by setting out the virtues of design as an embodied experience in strategy work – over a way of thinking through strategy work (Rylander Eklund et al., 2022). This further explains how strategic designers' contributions to strategy bring forward a different 'experience' of strategy, representing a more profound quality of design expertise in strategy work.

We know that strategic designers are developing their strategy skills, so their relation to and knowledge development of strategy is important (Rylander, 2009). Further research would be useful in expanding on how strategy concepts are being translated and embedded into design practices by strategic design practitioners. However, the discourse exploring strategic design explicitly states that designers co-determine strategy (Calabretta & Gemser, 2017). The relational elements between strategists and other actors in strategy are important considerations for covering how both strategists

and strategic designers are co-constructing new forms of *strategy with design* practices (Belmondo & Sargis-Roussel, 2023; Nielsen et al., 2022; Seidl, Von Krogh, et al., 2019).

This study also contributes to the discourse on open strategy, where other actors are considered as participants and contributors in the forming of strategy (Belmondo & Sargis-Roussel, 2023; Hautz et al., 2017; Seidl, Von Krogh, et al., 2019; Whittington et al., 2011). This study demonstrates that strategic designers have become influential in strategy work, where design has been understood and valued as a contributor towards strategy, as discussed in both Paper 2 and Paper 3. This follows several studies highlighting the potential overlap and synergies between design and strategy (Jevnaker, 2000; Simeone, 2020; Simeone & D'Ippolito, 2022; Stevens & Moultrie, 2011), but which have not been readily accounted for in strategy practice (Knight et al., 2020). This is despite research showing that designers contribute to strategy by developing products and services and the material artefacts and designed experiences that define design engagements (Harre et al., 2021; Jarzabkowski et al., 2013; Knight et al., 2018; Micheli et al., 2018; Ravasi & Lojacono, 2005). Future studies could focus more deeply on how strategic designers bring different qualities into strategy practices (for example, as a result of aesthetic knowledge) (Stigliani & Ravasi, 2018) across the five roles, and in which way strategists might best serve and support these inclusions (Micheli et al., 2018).

The results of this study contribute to the development and maturation of strategic design discourse as it provides a rich description of what strategic design is and how it affects strategy work. This study outlines how design is used for strategy across the five dynamic roles of strategy (Paper 2) and as a different style of practice in strategy work, as explained by strategy-in-action (Bouman & Simonse, 2023; Calabretta et al., 2016; Simonse et al., 2023). This contributes towards clarifying how designers work in the 'fourth order of design', as proposed by Buchanan (1992, 2015) (see also Lee, 2024). The roles of design in strategy (Paper 2) and strategy-in-action (Paper 3) are both representative of which skills designers use, and how, to *design systems and organisations* (Buchanan, 2015, p. 18). This means that designers' roles become visible and are seen as a legitimate professional design practice concerning strategy work. However, the study also shows that legitimacy is hard-won in workplaces that value more traditional and rational approaches to strategy (Micheli et al., 2018) and that some

organisations and strategists still see design practice as a supporting/ input role. This is exemplified by the different roles of design in strategy, specifically: experiencing, enhancing, informative, and generative. In this context, the study contributes to the developing discourse towards legitimising designers' roles in strategy as a developing practice distinct from visual, product, service, and architectural design, as described in Buchanan's (2015) proposals of the fourth order of design (see also Lee, 2024).

Papers 2 and 3 confirm that strategic designers co-determine strategy and bring a different practice into strategy work (Calabretta & Gemser, 2017). Strategy-in-action, therefore, becomes an articulation of how strategic designers work through strategy (Dorst & Watson, 2023). As an 'emergent strategy' practice (Mintzberg, 1979; Mintzberg & Waters, 1985), *strategy-in-action* addresses the issue that strategic designers need to overcome 'top-down' strategy approaches, as raised by Dorst and Watson (2023). Strategy-in-action demonstrates that strategic designers can bring an alternative approach to strategy where more traditional 'top-down' approaches are present – but that negotiation between practice types is required. Further, design roles in strategy show how strategic designers effectively influence and shape strategy across settings and roles.

Strategy-in-action is an exciting proposal for strategy practice, presenting a productive avenue to open strategy to other actors, such as strategic designers and broader stakeholders, in pursuit of participatory approaches to strategy (Belmondo & Sargis-Roussel, 2023; Seidl, Von Krogh, et al., 2019; Whittington et al., 2011). Further, strategy-in-action provides a rich description of the actions and principles that facilitate emergent strategy (Andersen & Nielsen, 2009; Mintzberg & Waters, 1985).

Furthermore, this study contributes to the strategy discourse by explaining how strategic designers influence and transform strategy practice and a new approach to afford greater degrees of adaptation, exploration, and inclusion as contemporary strategy practice calls for today (Bansal et al., 2024). As a result, future research exploring openness and new approaches for strategy practice may benefit from further inquiry into the potential of designers' roles in strategy, as extended placements for design and as legitimate practices for strategy (Buchanan, 1992; Lee, 2024). This study may also provide the groundwork for further experimentation in strategy practice, advancing conceptions of strategy outside of existing paradigms of practice, which tend to be centred on the logic

of ‘means-end’ for an organisation rather than broader societal and future-driven needs (Bansal et al., 2024; Chia & Holt, 2023; Franklin, 2001).

Finally, this study contributes to translation studies as a conceptualisation of how design practice, as an idea in management (Pollach, 2021), has been translated into strategy practices (Czarniawska & Joerges, 1996; Wedlin & Sahlin, 2017). Through this lens, we explain how and why design is used in strategy in various roles and that the ideas of design in strategy flow multi-directionally between strategists and designers as they are translated across fields and contexts (Nielsen et al., 2022; Westney & Piekkari, 2020). This study confirms that translation occurs dynamically as sets of mutually reinforcing factors and is better conceived of as ‘ecologies of translations’ (Wedlin & Sahlin, 2017). Therefore, the dynamic roles of design in strategy can be conceived of as five distinct *ecologies of design in strategy translation*, which identify sets of mechanisms that define why and how design appears in the ways it does. I propose that future studies exploring the roles of design in strategy would benefit from reviewing translation studies as a format to capture the dynamism of translation as a vehicle for the distinct permutations of design practice in strategy settings, which have specific types of impacts on strategy practice and the strategies that are developed.

Managerial Contributions

Design and strategic designers have become integrated into strategy. As a result, the papers presented capture the diverse translations, adaptations, and applications of design practice. The variety of applications is exemplified by the dynamic roles of design in strategy and ecologies of design in strategy translation, as well as actions and principles that aid strategy production. Therefore, the contributions add to the discourse, building on design thinking for innovation in management towards forming a legitimate and ‘fruitful’ proposition of strategic design and design more generally for strategy (Dorst & Watson, 2023).

The *ecologies of design in strategy translation* outline distinct mechanisms for managers to consider when seeking to embed or integrate design approaches into strategy and clarify key issues – as made visible through the translation mechanisms – when bringing designers and design practices into strategy work (Paper 2). Further, strategy-in-action (Paper 3) provides a process view of strategy with design that

describes how strategic designers work differently in strategy. From this view, managers can understand more completely how strategic designers navigate strategy, the potential issues and tensions that may arise between approaches, and then, as a result, how best to utilise strategic designers and design in strategy work. By recognising the role of strategic design for strategy-in-action, managers will have greater visibility of the differences in practice and what these distinctions mean for strategy outcomes and processes.

Further, this study provides examples of the virtues of transdisciplinary studies and makes the case for supporting fertile opportunities for business and design educators to expose students to both strategy and types of design practice. Our study clearly shows that management and design practitioners come from different education and knowledge traditions, leading them to practice in distinct ways. However, from a translation studies perspective, we understand that the relationship between practitioner types is influential in forging new types of practices, as demonstrated by the ‘enhancing’ role in Paper 2. Therefore, educational institutions may benefit from creating programs that integrate and accommodate different practice styles to prepare students for the realities of practice in strategy with design and, therefore, to establish the relevant interpersonal skills to navigate different work styles productively towards the articulation of new practices.

Limitations and Future Research

This study and its findings, as reported in this thesis, are limited by the boundaries of this PhD study. Therefore, additional findings from the thesis data collection will be reported elsewhere.

The study is limited by the methodological choices made. Specifically, this study reports on the broad applications of design in strategy rather than concentrating on specific case sites. This was intentional for the purposes of this study, to report more accurately on the phenomena as they exist in management and strategy across contexts, organisational constructs, and industries. Accordingly, reporting is broad and does not deeply explore specific case sites to accurately depict the nuances of relational dynamics and organisational practices that determine how design is utilised in strategy.

This study has focused on reporting the micro-practices that concern what practitioners do and their relational activities. However, further analysis from this study may expand the level of analysis to incorporate organisational and external environmental issues and different types of actors, such as ‘aggregates’ or ‘consultants’ (e.g., see the micro, meso, macro framework presented by Jarzabkowski & Spee, 2009) as external representatives working inside firms for limited periods – and the impacts these engagement types have on practice. For example, there is an opportunity to tease out further the organisational conditions, the importance of which is discussed in a preliminary way in the translation mechanisms of the ecology of design in strategy translation.

Additionally, other researchers may also be able to extend their contributions across different levels of analysis. For example, future research may attend to the specifics of each role type (Paper 1) and the specific conditions of practice and practices that are developed within specific settings. It may also be productive to compare case sites to contrast different roles and conditions of translation to further clarify causal features of practice along with related issues and opportunities. Alternatively, future studies may extend the level of analysis to investigate how other actors and industry players become involved in the strategic design work, where more sector-wide issues and complexities need to factor into strategy.

There may also be limits to strategic design practice in strategy work. Future research may be able to identify what these limits are, how they are presented through strategy work, and how these may be addressed by strategic designers, strategists, and managers. This recognises that both strategists and strategic designers bring forth specific qualities as suited to their professional contexts, and limitations and tensions may exist – but the significance of such tensions requires explanation.

We have also found that strategic designers’ and strategists’ ability to perform professionally is intrinsically linked to who they perceive themselves to be and what practices they consider necessary for effective strategy production (Brown, 2022). This doctoral research, therefore, suggests that more work is to be done to understand considerations driving underlying practice behaviours from an identity perspective – how current conventions of practices shape behaviours, and how behaviours are rewarded for practitioners aligning identities through role types. Broader perspectives could be drawn from critical design studies, such as those by Julier (2017, 2006),

Mareis et al. (2021) and Heskitt (2009), presenting design from a wider economic perspective. By focusing on the ideas driven by capital sentiments and neoliberalism, future studies can provide inputs that explain contextual influences that equally inform, identify and shape practitioners' purposes and roles in their work. This notion acknowledges that strategists and designers enter their work with preconceived knowledge and ideas about how the practices should unfold (e.g., Tonkinwise, 2011) and, therefore, initiate a specific type of practice as a result (Rouleau & Cloutier, 2022). From this perspective, the translation of design in strategy also has to contend with how agents or practitioners see themselves in work (van Grinsven et al., 2020). While the study presented here starts to investigate these issues tangentially, we can see further opportunities to explore the identity aspects of practices and advance this work. An identity perspective will serve the broader discourse by helping to understand what conditions and features of identity work shape the translation of design ideas between strategic designers and strategists when working on strategy together (van Grinsven et al., 2020).

In addition, this study outlines a link between the limitations of design thinking as an application of design in strategy and designerly forms of strategy practice (Johansson-Sköldberg et al., 2013). Therefore, further work is required to better understand how these limitations unfold in practice (Cross, 2023) and in contrast with strategic designers' approaches to strategy work (Calabretta et al., 2016). A more focused analysis will provide greater insights into how design thinking may be developed by non-traditional designers, such as strategists. This may include how their learning of design is conceived of and how different styles of practice affect the overall programs of strategy work and their outcomes.

Recent research has challenged strategy to expand established conventions of strategic analysis in the face of global climate change (Bansal et al., 2024). While this study presents alternative practices for strategy through design practices and strategic designers, more work needs to be done to map the parallels of design practice and designers' ability to navigate wicked problems (Buchanan, 1992; Rittel & Webber, 1973) and complexities faced by organisations and strategy today (Camillus, 2016; Mason, 2007). We see an incredible opportunity for strategy studies to explore parallels across ontologies and paradigms (Johansson & Woodilla, 2009; Johansson-Sköldberg et al., 2013) to contrast and align practices in aid of broader societal needs and to redefine

strategy's objectives towards life-sustaining activities over solely pursuing competitive sustainability for the organisation (Fry, 2009). While this presents a significant shift in the logic of the strategy practice field (Chia & Holt, 2023), existing strategy frameworks do not sufficiently address the 'bio-physical macro-level constraints' that are driving climate change (Bansal et al., 2024, p. 2). Design practices afford visionary and nature-considered thinking (Borthwick et al., 2022; Buchanan, 2019), in addition to including macro perspectives at the systems level (Hill, 2012; Nelson & Stolterman, 2012). Combined with 'redirected' design approaches towards sustainability (Fry, 2009), strategic design can support the development of more suitable strategy frameworks and practices to address climate change (Bansal et al., 2024). Future research needs to consider how design in strategy may be more meaningfully contrasted with traditional approaches to strategy, with design and sustainment at the fore. We note the work that has begun on strategy foresight with design (Simeone & D'Ippolito, 2022; Simonse et al., 2023).

Overall, on reflection, this study has produced a variety of insightful and surprising results. It has revealed the distributed and nuanced ways that design is being used, which often displaces designers and or is utilised based on the limits of others' knowledge about the value of design. In contrast, some of the insights follow the broader complications of design being used in management and a design thinking paradigm, where traditional management approaches tend to stifle or constrain where and how design practices or designers become a part of strategy (Liedtka, 2020; Micheli et al., 2019). The research participants were often familiar with design on some level, which also points to the difficulty of finding strategists and observing their work where design is not present. To contrast two extreme contexts where, on the one hand, strategists do not understand and/or engage with design and, on the other hand, designers work in a more design-familiar context would help to build our understanding about what informs how strategy practitioners learn to do what they do, and under what conditions design becomes part of the process. This scenario would present the opportunity to understand when design becomes useful in unexpected ways and when design is not necessary to enhance strategy work. It appears, therefore, that the limits of design are perhaps related to the forms of analysis relied upon to determine robust strategy (as it is perceived by managers and strategists), and in the knowing of design as a kind of disposition and pre-conditioning that an individual should possess stepping

into strategy work (Rouleau & Cloutier, 2022). Consequently, future research into relevant knowledge and learning for strategy practice would help shed further light on how design may become part of normative knowledge and in which circumstances or learning environments that may be developed.

Conclusion

This thesis presents the role of design in strategy as it is developing in practice. The study advances the existing discourse discussion in a fragmented and underdeveloped landscape. Specifically, this study identifies the five dynamic roles of design in strategy, which create specific types of experiences and applications of design in aid of strategy formulation. The five roles of *Experiencing*, *Extending*, *Enhancing*, *Informative*, and *Generative* are further advanced by theoretical abstractions as *ecologies of design in strategy translation*. The roles of design in strategy are described as developing through the unique combinations driven by mechanisms of translation: actions, actors, complex interactions and relations, organisational settings/contexts, circulation of ideas, and the communication of ideas through prototypes and templates.

Further, the study reveals how strategic designers bring forth a different style of strategy practice, that is, exploratory, reflective and emergent, prioritising validation and real-time testing over analysis of existing conceptions and assumptions about what good strategy entails. To capture this difference, the study presents strategic designers' contributions to strategy as *strategy-in-action* – an emergent strategy practice – that differs from traditional top-down, economically focused and pre-planned strategies. These findings confirm that strategic design is a new and influential form of strategy practice, which, importantly, involves strategic designers and strategists working together to realise that progression. The study also points out that design thinking is a limited perspective of design practice in strategy work, as the application of design is measured by how well strategists understand design thinking and how the relevant methods and tools are translated into strategic practice.

Design in strategy is a developing arena in strategy and will continue to progress where organisations and strategists seek to expand current ideas of strategy towards more human and life-sustaining paradigms. We see this as inevitable as strategy cycles are reduced and organisations contend with highly ambiguous, complex, and disrupted conditions because of climate change, geopolitical disorder, and mass digital disruption. The hope is that this study offers a platform to advance strategy discourse and management studies to cope more productively with the dynamic realities of strategy

work through design. As a result, this study seeks to inspire transdisciplinary perspectives of strategy, which can more readily explore design as a form of strategy practice and challenge existing conventions and logic in strategy discourse.

Appendices

Appendix 1 – Methodology: Data Structures for Papers 1–3

Figure 17

High-level Data Structure for Paper 1

Paper 1: Design and strategy: issues, opportunities and future directions:

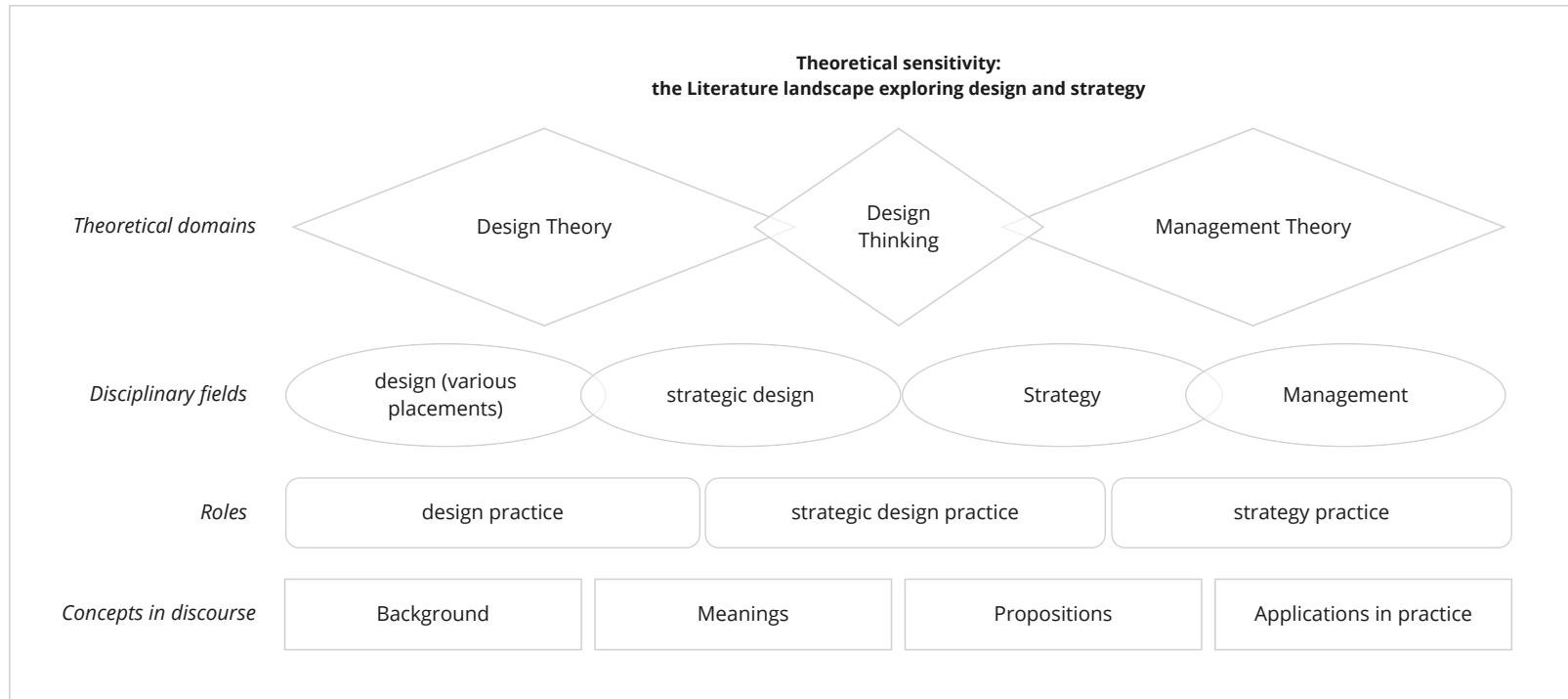


Figure 18

High-level Data Structure for Paper 2

Paper 2: What is the role of design in strategy? Exploring emergent relevance and practice

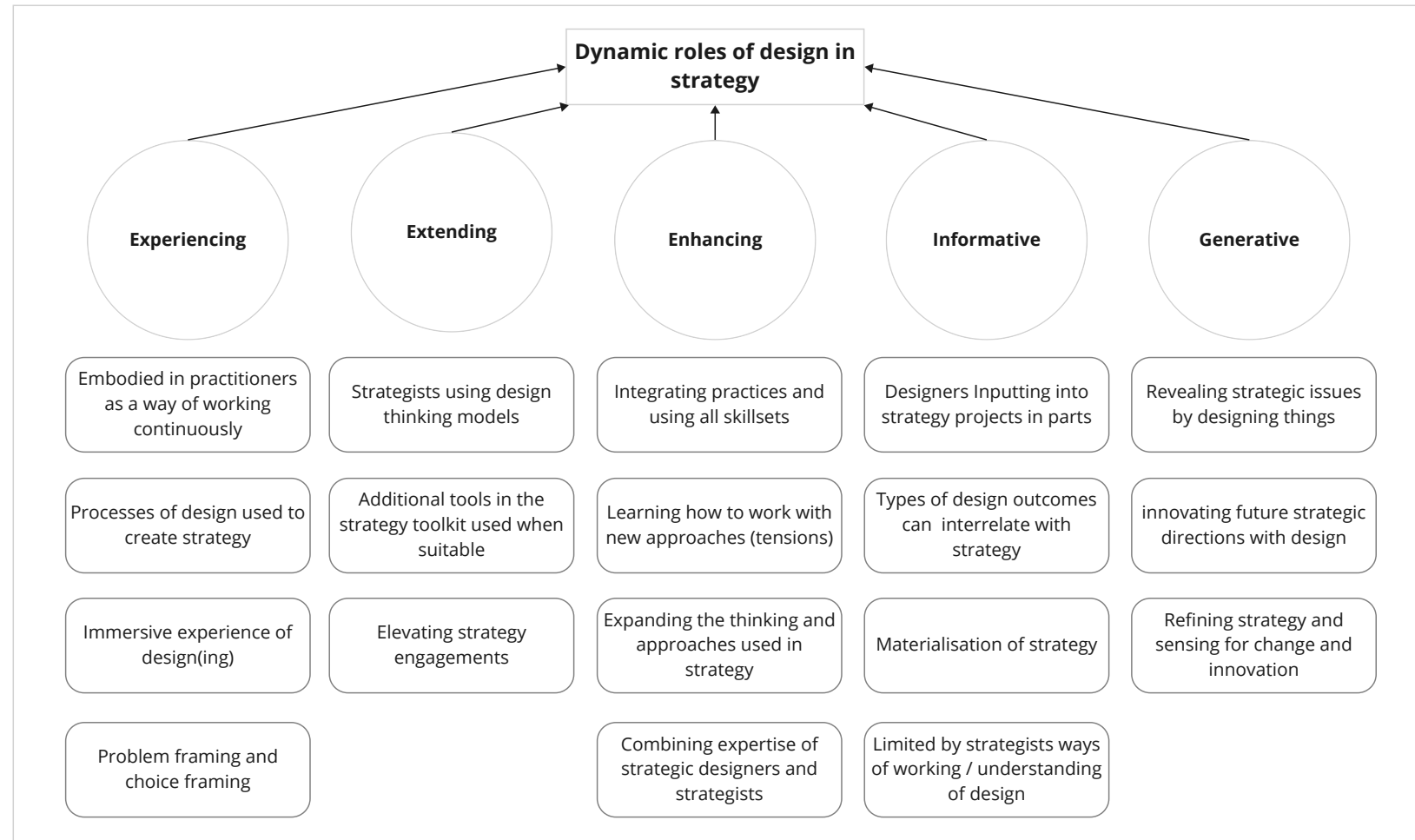
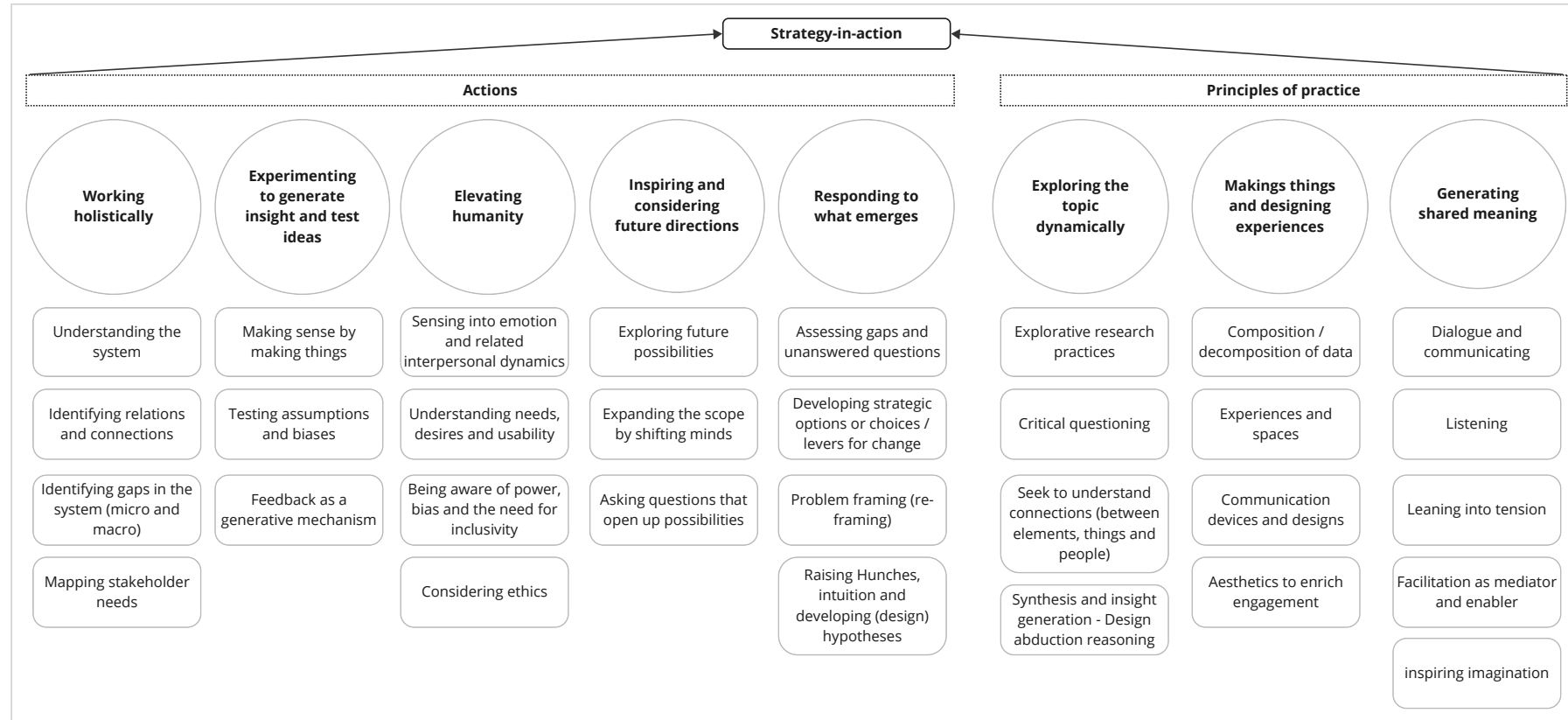


Figure 19

High-level Data Structure for Paper 3

Paper 3: Strategy-in-Action: How design-infused practices inform new approaches to strategy formulation



Appendix 2 – Sample Overview

Table 10

Summary of Interview Participants

Interview number	Interview date	Participant category	Role category	Country	Strategy type*	Years of experience	Participant Code
1	27.09.22	SD	Consultant	Australia	C, B	25-30	SD_1
2	27.09.22	S	Consultant	Australia	C, B, P	20-25	S_2
3	27.09.22	S	Consultant	United Kingdom	B, P	20-25	S_3
4	11.10.22	SD	Director	Norway	B	20-25	SD_4
5	12.10.22	S	Specialist manager	USA	C, B	30+	S_5
6	13.10.22	S	Senior executive	Canada	B	30+	S_6
7	20.10.10	SD	Specialist manager	Australia	B, P, S	30+	SD_7
8	25.10.22	SD	Specialist manager	Australia	C, B	20-25	SD_8
9	10.11.22	S	Consultant	Australia	B	30+	S_9
10	11.11.22	S	Senior executive	Australia	B, P	20-25	S_10
11	14.11.22	SD	Specialist manager	Australia	C, B, S	20-25	SD_11
12	18.11.22	S	Specialist manager	Australia	C, B	20-25	S_12
13	28.11.22	S	Consultant	Australia	C, B	30+	S_13
14	30.11.22	SD	Senior executive	Australia	B, P, S	25-30	SD_14
15	2.12.22	SD	Specialist manager	United Kingdom	C, B, P, S	15-20	SD_15
16	13.12.22	S	Specialist manager	USA	B	30+	S_16
17	20.1.23	S	Consultant	Australia	B, P, S	20-25	S_17
18	16.3.23	SD	Specialist manager	Australia	B	20-25	SD_18
19	21.4.23	S	Consultant	Australia	B	25-30	S_19
20	3.5.23	SD	Specialist manager	Australia	B, P	30+	SD_20
21	3.5.23	SD	Consultant	Netherlands	C, B	20-25	SD_21
22	5.5.23	S	Director	Australia	B, P	25-30	S_22
23	9.5.23	SD	Consultant	Australia	B, P, S	20-25	SD_23
24	10.5.23	SD	Director	Australia	B, P	25-30	SD_24
25	15.5.23	S	Senior executive	Australia	B, P	30+	S_25
26	19.5.23	SD	Consultant	Australia	C, B	25-30	SD_26
27	25.5.23	SD	Specialist manager	Australia	B	15-20	SD_27
28	25.5.23	SD	Specialist manager	Australia	B, P	30+	SD_28
29	26.5.23	SD	Specialist manager	Australia	B, P	20-25	SD_29
30	29.5.23	S	Consultant	Australia	C, B	25-30	S_30

Interview number	Interview date	Participant category	Role category	Country	Strategy type*	Years of experience	Participant Code
31	29.5.23	SD	Specialist manager	Australia	B, P	30+	SD_31
32	31.5.23	SD	Specialist manager	Australia	B, P, S	25-30	SD_32
33	13.6.23	SD	Director	Australia	B, P, S	30+	SD_33
34	20.6.23	S	Consultant	Australia	B	25-30	S_34
35	26.6.23	SD	Specialist manager	Norway	C, B, S	30+	SD_35
36	26.7.23	SD	Senior executive	Australia	C, B, P, S	30+	SD_36
37	27.7.23	S	Consultant	Australia	C, B	30+	S_37
38	29.8.23	SD	Specialist manager	Australia	B, P	25-30	SD_38
39	31.8.23	S	Consultant	Australia	C, B	30+	S_39
40	1.9.23	SD	Consultant	Australia	C, B	20-25	SD_40
41	5.9.23	SD	Senior executive	Australia	B, P	30+	SD_41
42	7.9.23	SD	Consultant	Australia	C, B, P, S	30+	SD_42
43	7.9.23 15.9.23 8.12.23	S	Consultant	Finland	B, P, S	20-25	S_43
44	8.9.23	SD	Specialist manager	Australia	B	30+	SD_44
45	22.9.23	SD	Consultant	Australia	B	20-25	SD_45
46	26.9.23	SD	Consultant	Australia	B, P, S	15-20	SD_46
47	4.10.23	SD	Specialist manager	Australia	C, B	15-20	SD_47
48	13.10.23	SD	Director	Australia	C, B, P	25-30	SD_48
49	24.10.23	S	Director	Australia	B, P	30+	S_49
50	2.11.23	SD	Specialist manager	Finland	B	15-20	SD_50
Focus Group Participants							
1	6.7.23	FG1	Consultant	Australia	C, B, P, S	15-20	FG1_1
2	6.7.23	FG1	Consultant	Australia	B	20-25	FG1_2
3	6.7.23	FG1	Consultant	Australia	C, B, P	20-25	FG1_3
4	6.7.23	FG1	Senior executive	Australia	C, B, P	25-30	FG1_4
1	4.10.23	FG2	Specialist Manager	Australia	B, P, S	20-25	FG2_1
2	4.10.23	FG2	Consultant	Australia	C, B, P	25-30	FG2_2
3	4.10.23	FG2	Specialist Manager	Australia	B, P	15-20	FG2_3
4	4.10.23	FG2	Specialist Manager	Australia	B, P, S	15-20	FG2_4

*Key: Types of strategy that participants re involved in formulating: C: Corporate Strategy, B: Business Unit Strategy, P: Product Strategy, S: Service Strategy

Appendix 3 – Paper 2: Data Structure, the Dynamic Roles of Design in Strategy

Table 11

Data Structure, the Dynamic Roles of Design in Strategy

Core category: The dynamic role of design in strategy		
Aggregate dimensions	Second order themes	First-order concepts as they appear in the data
Experiencing	Embodied in practitioners as a way of working continuously	<i>Using design allows us to make choices in little bite-sized chunks – looking at the aggregate of choices that will then inform the strategy.</i> <i>You are working in a multidisciplinary way, being iterative in the way that you work. You are open to new practices and blending those together in creative ways. </i> <i>It is inherent in the way I see the world and inherent in the way that I address strategy.</i>
	Processes of design used to create strategy	<i>Customer needs and pain points, understand constraints, what was and wasn't going to be feasible and iteratively design our concepts is design-led approach to strategy as a process.</i> <i>This is the process we will go through, because we have a belief in this [design] methodology.</i> <i>We are particularly interested in is strategy as a medium of design (using design to create strategy)</i>
	Immersive experience of design(ing)	<i>Everything that we offered was a highly experiential way. we deck out a room with all the stages of the process where we follow what was happening at each stage so that if any given moment of anyone walked in, we could give them a tour.</i> <i>I think what we're doing now is closing that gap to execution...design or the tools or design or mindsets of design bring to strategy are things like tangibility.</i>
	Problem framing and choice framing	<i>It's a lot more exploratory to try and find that solution and bringing people along that journey...design processes always a process about solving problems - solving wicked problems.</i> <i>The work starts with an exploration phase, in a strategy context needs it needs to gravitate towards strategic questions of the firm or organisation.</i> <i>Raise tensions to fall out of love with choices and reassess choices.</i>
Extending	Strategists using design thinking models	<i>I think design thinking techniques have really brought structure and enriched that process. It becomes much more accessible for strategy consultants.</i> <i>I need a tool set to do that joins the dots it's sort of design thinking plus strategy.</i> <i>After doing quite a few projects and research with customers' data using all the frameworks of design thinking, I'm now pretty comfortable with those.</i>

	Additional tools in the strategy toolkit used when suitable	<i>Design the strategy – lean into that as that creative act... using the strategy approach that are so deeply analytical and then pairing that with creativity because you're designing for a future state. So you have to be creative, you can't know everything.</i> <i>I would describe using design thinking in strategy as adding more feathers in your cap and being more deliberate about certain things.</i>
	Elevating strategy engagements	<i>I think, you know, that time is sort of very much in the past now and increasingly strategy, has been formulated in a way that's much more inclusive...</i> <i>design plays a really critical role because it's a very efficient way of bringing in a very efficient and effective way of bringing, you know, a diverse group of individuals, uh, to provide input and to synthesize and iterate, into the strategy formulation, and then ultimately execution kind of process.</i>
Enhancing	Integrating practices and using all skillsets	<i>I've got strategy, business architecture, human centred design, kind of all together, which is a great cross fertilisation of skills.</i> <i>The expectation and the capabilities across the team is the ability to identify and conduct customer research.</i> <i>Where strategy comes into play you need the designers running alongside to make sure that the solution stays true to the insight.</i>
	Learning how to work with new approaches (tensions)	<i>You've got two teams who have very different ways of working. We're here thinking so expansively everything that anyone says, 'let's build on that'. Can we agree? More ideas? Yeah. Whereas the people there are like, we really think this is this is the key hypothesis we need to focus on.</i> <i>Where the tension gets healthy when you're actually negotiating, balancing and kind of using the strengths.</i>
	Expanding the thinking and approaches used in strategy	<i>I think strategy has such a connotation... like it's a theory...design-led strategy is about bringing to life the strategy in a more meaningful way that really reflects or connects with the real user and you have a little bit more evidence as to what that's actually going to deliver A voice of the customer...a true voice that can be done through research...be the translator of those insights.</i>
	Combining expertise of strategic designers and strategists	<i>Within strategy process allow for a strategic designer to come in and really disrupt something or refine a concept.</i> <i>It can be quite can be quite a lot of as well as forming norming and storming of new teams. It's also just making sure that we're going to invest the time in agreeing to solve the right questions</i> <i>How are they more integrated with one another, a matter of scale and timing - one or the other?</i>

Informative	Designers Inputting into strategy projects in parts	<i>Currently we are cooperating with strategy, and it is more informative than involving... we're only doing projects that we have clearly linked to the strategy, supporting the vision work.</i> <i>A lot of the work that I do informs strategy, but not necessarily as the person that shapes it.</i> <i>They wanted to explore people with complex disabilities that want to live on their own. What can we do in that space? So my role in that was to take that very broad question and take it to the point of defining the strategy</i>
	Types of design outcomes can interrelate with strategy	<i>Specifically, brand strategy.. is very close to it strategy and is like its own thing that I would say we are adjacent to and slightly overlapping with.</i> <i>I'm going to say there is a huge need to translate and show the work, bring people into what we're doing and why and make those trade offs.</i>
	Materialisation of strategy	<i>We were first most seen as like helpers to make nice PowerPoints or draw a chart or help them to facilitate conversations effective by designing silent voting tools etc.</i> <i>I think in consulting often you get handed blueprinting project, so sometimes they're completely baked in.</i> <i>We said, here's the end to end patient experience and this is what it means for the actual physical design of the building.</i>
	Limited by strategists ways of working / understanding of design	<i>Now that they renewed the strategy team, we got really different kinds of people there, it's hard to like go to work with them and make things better.</i> <i>You often get someone who's deeply embedded in the industry that absolutely struggles with the idea that there might be other ways to go about strategy: take the opportunity to explore. So when we do work directly with strategist, we can struggle.</i>
Generative	Revealing strategic issues by designing things	<i>It was apparent that the problem wasn't really so much the design of the thing, as the people involved.</i> <i>Having the right influence and the right translation and the right level of empathy, the right level of listening that can help influence the direction of the corporate strategy</i> <i>There's a lot of specialist design roles that have nothing to do with strategy, but still utilise understanding what people might want or need - what works for them and helping translate that into a product or service or system or business model that works.</i>
	Innovating future strategic directions with design	<i>As a strategic designer, you were put in a tribe and you work there towards a specific need of that tribe, because they have the money for developing their thing.</i> <i>Strategic innovation is really about how you go about innovation in a strategic way...ensures that the innovation was informed by people who really</i>

understood the business in a deep way...then to use that as a way to learn about design.

Refining strategy and sensing for change and innovation

I was hired to create a vision for the company, articulate who are our customers, what do they want, validate what they want via market testing conceptual concepts (qual and quant). We first talk about your context in 10 years time and then from that perspective look at what the strategic question should be, a lot of upfront work to understand the context and then the design idea is a no brainer.

Appendix 4 – Paper 2: Data Table of Ecologies of Design in Strategy Translation

Table 12

Data Table, *Ecologies of Design In Strategy Translation* (adapted from Wedlin and Sahlin, 2017)

Mechanism	Experiencing	Extending	Enhancing	Informative	Generative
Actions (Perceptions and objects lead to actions)	Practitioners learn through design studies or extensive experimentation with design practices over time. The application of design in strategy begins with an education or commitment to design as the approach to work. Strategic designers develop their ability to apply design into strategy by learning how strategy is formulated, methods, tools and language as appropriate to their audiences as 'design context'. Design is an embodied and embedded experience used consistently throughout strategy work.	Strategists learn their practices largely through their experience working in strategy consulting and have arrived into strategy through business and economics programs. Strategists extend their methods to incorporate design through design thinking, having been exposed to this through training or exposure to designers and other practitioners who follow this approach. Design thinking methods and tools are used to inform when and how to engage design approaches in strategy work. They are used more at points in the project as an optional tool/method to achieve a specific outcome in the strategy work.	Strategists and strategic designers work in a team. They have arrived into their work from their disciplinary fields and studies (as reflected in experiencing and extending), but that they are coming in to work together to find ways to integrate design approaches into strategy. Both practitioners are undertaking mutual learning, knowledge development and creating new types of practices together as a result. Design approaches are integrated into strategy programs of work and agreed to by clients. These programs of work and placement of design on teams afford design approaches to be embedded in strategy work.	Strategists or managers are seeking inputs from strategic designers because they understand design as being useful for specific tasks such as customer research, visualisation of materials, and workshoping. Strategic designers undertake discreet tasks, which are then shared with those creating the strategy. Strategic designers are not extensively involved in the strategy work but are informative the developing through their specific contributions. Strategists develop strategy independent to strategic designers and therefore integrate and translate design inputs in relation to how they perceive to be most instructive for the strategy work.	Strategic designers produce designed things, which elicit new strategic insights, or work on designing strategic interventions and innovations internally that facilitate strategic moves and inform decision-making or sense the need for innovation and change through designing activities. In undertaking these design tasks, strategic designers expose important insights that have a strategic consequence. Strategists or managers only respond to these when strategic designers communicate the relevancy; they recognise the relationship of these insights as instrumental for strategy work, and when they require action and change for the organisation, leading to the integration of insights and taking action in relation to strategy.
Selected quotes	<i>"My background is in industrial design...I then I did another course on web design and started my career in designing websites and apps because that's what everyone wanted at the time. To this day realise how much my degree did prepare me for more than that. Everything from strategic design, to marketing, and</i>	<i>"There isn't undergraduate strategy. But that was kind of my background. Maybe three or four years in after finishing undergraduate and MBA which is got more formal kind of strategy training as part of it, but I would say that most of my learning has been on the job." (S_25)</i>	<i>"The first time you're applying together work I was really amazed or find out about how he planned for a workshop. it was in addition to kind of planning the activities that we do and kind of how does the kind of content flow or how do we get from how do we get people to kind of generate ideas and then somehow group</i>	<i>"We've got a lot of data points that we've now captured, we're synthesising them into a set of recommendations and a key aspect of that work is going to get the strategy team to provide feedback and a strategic lens on the recommendations and how they align with the department's broader strategic objectives and</i>	<i>"I was the lead designer on this project and when we say designer, we mean research and strategy that was a nine-month project where we essentially had a really awesome governance structure. And so we started off by doing a whole bunch of basically we've had this really multidisciplinary approach... but</i>

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	just general user research., brand experience and strategy. I went from being a creative office back of house designer into working with buyers and being client facing whether it was still designing... and then ended up working in a big four consulting firm as a strategic designer. (SD_45) "I don't have design training, even though I was always, like, I'm designing the system, I'm working on the system. And that's, that's what the design is. But over time I found a more active role...as I gained experience, my research, findings and recommendations became stronger and stronger and eventually they became the design. (SD_1)	"I joined as a consultancy firm as a grad in the tech consulting side of things, but I was always more on the sort of the business side of the tech piece and so on...I'd take off all take all the process and the design on the operations side, redesigning businesses. After that moved to the UK where I did some more of that design side of things . the consultancy I worked for had a big Design Lab over there - millions of white boards, all sorts of digital whiteboards as well. Really experiential spaces, so that was really my first exposure to a more human-centred way of doing things." (S_30) "So I think my guidance to you would be to define your strategy cycle. Because if you're looking for design thinking, it may be more relevant in some points of that cycle in others." (S_9)	them and take them further or build up on each others ideas? Considering how do we get from the of inputs to outputs? "(S_43) "When the strategists started to realise just exactly what it meant [to engage with design in strategy} and how it could impact it sort of really did change how strategy played out in some in some of the projects that I worked on." (SD_18)	other objectives that are there in the department at the moment." (SD_47) "The classic ones depending on the project and the brief at hand, but customer operations or customer service are often a great one as a proxy to not only customer voice but how systems work today, and often also holding that SME mindset because they're having to answer every single question from customers, or they know the black and white of what we can and can't do. So operational roles or customer servicing roles. Now depending on the culture of the business, or you know, the brief at hand that might be done in different ways." (SD_27)	we developed a new model of residential care and through that we started with a hypothesis, which we then used, So it looked at the environment, young people's sense of agency relationships, transitions and health and wellbeing. I guess the role of strategic design in this was interestingly, like very important, in developing the new model and implementation of it for our organisation." (SD_15) "In my last project I had a space that my company wanted to explore – people with complex disabilities that want to live on their own. What can we do in that space? So, my role in that was to take that very broad question and take it to the point of defining the strategy, but also the proposition for the first couple of things that need to underpin that strategy to the point of here's the five things that the first version of the product needs to do. And here's the commercials and some. Here's what we think it could be in terms of market size, but also value creation for the organisation but also some other things that they were looking for at the time. "(SD_28)
Actors (Practitioners, mediators or enablers)	Strategic designers undertake strategy work using design approaches as a core model of strategy formulation. The clients or key stakeholders that undertake this work with strategic designers understand the value of following a design approach to strategy as	Strategists undertake design approaches in light of key decision-makers' needs and preferences for a particular style of strategy. Strategists may also perceive that stakeholders may not appreciate a design approach and so do not make design approaches explicit in	Design is integrated into strategy projects and the degree to which design approaches appear in strategy is negotiated between strategists and key stakeholders involved in the work as part of the programs of work. Sometimes design is integrated	Design is treated as a service and input to strategy by strategists. Strategists that request strategic designer's inputs and presence in strategy work do so because they see the value of their contributions in very specific ways. Strategists decide how to	Strategic designers are undertaking their roles to design things in organisational settings. The degree to which their work is linked to strategy depends on how key stakeholders see their work as instrumental to strategy or not, and if strategists have

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	they are seeking a different approach to strategy making (e.g. more inclusive/consultative, innovative, future-focused). Design approaches are enabled because they are desired and valued.	the work or decide not to integrate these as a result. The integration of design into strategy is optional, in consideration of the key decision makers involved in the work.	but not explicitly discussed as a feature of the strategy work, but rather as an overall approach to strategy. Managers of strategy projects understand and value design approaches in strategy and that strategic design practitioners bring forward a different expertise to this process.	use the design inputs in strategy work without involving strategic designers in the strategy formulation process.	connections with designers in their work. The opportunity to support strategy through the outcomes of design and designing activities arises when strategic designers and key stakeholders can make linkages to strategy work, and enable it to inform the articulation or refinement of strategic directions.
Selected quotes	<i>"The most challenging to instil in our customers was the role of design and the rigour of adhering to a design methodology. And we had to kind of really convince a lot of our clients that are designed led approach has value, because it's competing against their business as usual for years, if not decades of how they're operating."</i> (FG_2_3) <i>But our clients understand that our firm is about human centricity design, tangibility, testing and that we are going to challenge your thinking, we're gonna push you. They're disappointed if they don't get it...people are coming to us or engaging with us and, and learning about what we do, because they already know our value proposition is different from a lot of consultancies.</i> (SD_6)	<i>"Sometimes you build a strategy to set direction with an executive team, that is very small, and it's confidential – it involves a small group of people in the ivory tower. Others are very much: 'Hey, we need to come up with something that is engaging, and we need to talk to everyone about it.' ... I think it just depends on the asking what the client wants. Some clients' objectives are to engage the team or engage the group in an off-site type context. Others are like, actually, this is just the hard conversations that we need to get to an answer to, most of the time if the emphasis is on finding the answers. Then we focus more on that, and you know, PowerPoint slides is enough. [as opposed to more design-types of approaches]."</i> (S_2) <i>"I don't buy into the dogma of design thinking, it has to be done in this way. I don't buy it... a lot of people get religious about the frameworks and approaches, and I think that's incredibly dangerous. I don't think much of the framework of design thinking because I think</i>	<i>"[The approach you take] That's backstage, not front stage. And the client should never see that and that you just feel like they're getting a great experience, and it all makes sense. It's pragmatic, and it's the right amount of structure, and it always fades into the background that helps them and guides them and guides them across. But [style of process adopted] shouldn't be front and centre, and I think that applies to both the analytical and the creative."</i> (S_2) <i>"I think overall in the strategy process, there's a parallel concept of that kind of double diamond kind of exploration and convergence. I think that we haven't quite cracked how to get all the business stakeholders on board with what feels to them a very unstructured at times design exploration perspective. Some stakeholders are very quantitative driven and kind of want to see numbers. So it's also really a bit of a balance between what methods is going to work to</i>	<i>Design is treated as a service and input to strategy by strategists. Strategists that request strategic designer's inputs and presence in strategy work do so because they see the value of their contributions in very specific ways. Strategists decide how to use the design inputs in strategy work without involving strategic designers in the strategy formulation process.</i> <i>"I've got a lot of colleagues that do really get design and what's really good is that. There's a partner who says, I believe in the process is you know, feel uncomfortable in the ambiguity, like trust the process in design. He's like, he's totally bought into that concept. So, he just brings me into anything and everything. Sometimes I'm sort of like, I can do a workshop for you, but what are you trying to achieve?"</i> (SD_45) <i>"I think in those early stages, particularly on that discovery, and alignment is required with senior leaders, because they're</i>	<i>"I am working with some very 'design' immature clientele and that means in the first instance, I really am not talking to it being design at all. So that's the first like, I really wouldn't even use the word that I would come close to it by saying we need to be user centred. Or I would say we need to do user engagement. Not like I said, not even know how to really use the word research, but I'm trying to push them because they do ask to be learned from industry. Like yes. So at the moment, probably like I said, I have just organically found and you get on steam with my organisation and the stakeholders withing it."</i> (SD_45) <i>"We used 12 months secondments in our innovation team, the staff to learn about design. You know, start to really behave and practice in a different way. Learn a bunch of new capabilities, and then take that back out to the business as a as a new form of strategic leadership. And so this was just like an amazing experience again, thing</i>

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		<i>you've got to apply your mind to what you really need and why and, you know, you need to be critical in your thinking. And here's how to use a framework can show you how it gets applied, but actually, it's insight that you're looking for. (S_9)</i>	<i>solve the problem as well as which methods are going to work to bring the stakeholders on board." (S_25)</i>	<i>typically going to be managing the more strategic work. They're typically going to be the ones that need to be brought into this that they need to be aligned to it. And they also have a good obviously a very strong business understanding historical understanding, but then also a market understanding. So I would be probably bringing in in those early phases and keeping across some very strategic like strong leadership members and almost forming a bit of a committee." (SD_27)</i>	<i>I'm always really looking for and in jobs is is you know, the opportunity to learn and to try to apply design in new and different ways. So let's go great." (SD_44)</i>
Complex interactions and relations (tensions, questions and adaptation)	Strategic designers often work with clients or key decision-makers in highly collaborative ways, bringing them into the process. Strategic designers often play an educational role in facilitating strategy through a design approach, as it involves different ways of experiencing strategy and gaining insights and inputs that inform strategy. Strategic designers see this as an important step to support the implementation of strategy, as collaborative approaches co-design and familiarise key stakeholders about aspects of the change.	Strategists seeking to integrate design thinking into their approaches to strategy are often introducing a new approach into strategy and therefore need to demonstrate the value of design approaches to key stakeholders and colleagues who may not be familiar with the approaches. Design thinking approaches are enabled by the strategists who are adopting these and also the participants involved in the strategy work, and their expectations and ability to undertake design approaches in strategy effectively.	Strategic designers and strategists negotiate between their existing knowledge of how to facilitate their work from each disciplinary domain. This often leads to tensions as there are different expectations about how a strategy project should unfold, how much time and which activities are used in strategy work, and how they reach consensus about how to use the inputs generated between and in relation to each practitioner type. While undertaking this work together strategists and strategic designers are both making sense of the inputs towards the strategy, while also making sense about how to work with one another effectively and as a result a formulating blended approaches to strategy work through the embeddings of design in strategy projects and the relational work undertaken to	Strategic designers and strategists hold different roles in this setting and therefore their relationships proceed more as a client/supplier dynamic. Strategists therefore hold a greater agency over what kind of activities are undertaken to utilise in strategy, and in which way they are integrated into the strategy work. Strategic designers hold less agency in this role as they lack the ability to direct key activities. Tensions arise when strategic designers can see the potential for work and being more integrated into the strategy work, but that they cannot influence strategy as their position is not valued as contributing to the crafting of strategy.	Strategic designers have designated roles and functions within organisations to undertake their design tasks. Their connectedness to and in relation with strategists depends on their interpersonal relationships and how they are required to engage with strategy. Where design outputs generate insights, strategic designers are tasked with advocating and communicating the strategic relevance of insights and strategic issues relating to this work. Strategists are undertaking their work independent of strategic designers', Managers and key decision makers can advocate for the interconnectedness of both strategy and design activities to facilitate the integration of insights. Agency is generated through permission-giving activities and effective

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			discover the most effective ways of working that serve the strategy work and the functioning of the team.		communication between stakeholders.
Selected quotes	<i>"You know, the design space, sometimes people just really want to work in a different way and so they get excited about the idea of working with a company like ours because they know it will be a different kind of experience than what they have done in the past. So sometimes it's that they need a different answer: the answers that are in front of them don't feel good enough, and so they need a thought partner in coming to different answers. Sometimes it's, they just want to work in a different way, and sometimes it's that they know and trust us and that they are excited about working on a challenge around their strategy with us. (SD_6)</i> <i>"I think you can't emphasise how relational strategy consulting is, enough I don't think, because you need such a level of trust from an organisation...I think over time, the relationships are everything, like it's just the same people have worked with us for a long time. And then, you know, when you're bringing on a new client, you know, you obviously work on work on that relationship, so the trust is there and they'll keep working with you. The clients are coming with us and doing the work with us. So but that that costs a lot and it takes much longer. So there's always a trade off on the client side About</i>	<i>"So this very much depends on what the client actually wants. So it needs to be a bit flexible, I think...</i> <i>I think that there are actually techniques that you can use to elicit and unleash great design and facilitate great design with your clients well, because it needs to be co designed with the client, and that stands outside right. It needs to be co designed by your client and you with their customer and with their possible customer and with that sometimes with their competitors. So, I think at one level, good strategy is always needed design, another level that has become very much a more formalised part of the method." (S_34)</i> <i>"There's issues when just very little patience for exploratory thinking. I think that comes into this is like the organisation's culture, as well as the leadership because it's like: what is rewarded by their culture? Is that taking time to unpack and rethink? Or is it? You know, getting to quite high fidelity answers quickly moving quick – be a first mover advantage style of decisiveness? I was working with a particular leader who was very much like, alpha male, like in the workshop with a super senior partner, and he was grabbing the whiteboard marker off the partner. No, no, no, we're going to do it this</i>	<i>"You've got two teams [strategic design and strategists] who have very different points to focus on. 'We're here thinking so expansively everything that anyone says, we like, let's build on that. Can we agree.' You know, more, more, more ideas? Yeah. Whereas the people there are like, 'we really think this is the key hypothesis we need to focus on. Yeah, let's be laser focused. And really, you know, get to prove that out'. So you're at such different points ... here the tension gets healthy when you're actually negotiating, balancing and kind of using the strengths of those who are more focused versus those who are more out there. Not disqualifying either of them. But actually using that tension to propel things forward." (FG2_2)</i> <i>"The strategic designer was planning the mood of the of the workshop, let's do some energising there and then we'll get the dopamine flowing and things that I had never thought about Like how do you manage and lead mood of the people are going to mood after all, how they keep how they keep them energetic and how do you energise them and when to slow down. For me, I've got an engineers background and then</i>	<i>"For some reason, but like you really often get someone who's deeply embedded in the industry. They can absolutely struggle with the idea that there might be more than one way to go about this, and you can just take the opportunity to explore [using design]. So when we do work directly with strategists, we can struggle." (SD_36)</i> <i>"I think that design, the value of design in strategy is still not very well understood. So I want on that point, and say that in most I'm not going to say all but in most of the projects that I worked on the strategists I've worked with have never been fully clear. Why we were there... often, I would often the purpose that I'm bringing us in would be all we need to understand a little bit about customers and then put that into the strategy and it would almost be like a it will make us look good if we have some voice of the customer within the strategy, you know, so a lot of the time, they didn't even really want to use it to inform what was happening." (SD_18)</i> <i>"So as a real, what does the customer need? What could what capabilities will be handled, need to build to meet those needs, as at play within the biggest strategy? And also, I think what will design</i>	<i>"The bank had a strategy team that was responsible for rolling out strategy and reporting on strategy and, and the strategic innovation tea. We barely had even a dotted line between the two teams. The purpose of strategic innovation was to be in a theatre relationship with the executive team to be stimulating their thinking, to be helping them, you know, ask questions and answer questions, and to develop over time greater confidence in the spaces that they were being asked to make decisions about. Influencing strategic planning exercises, to that where you employ influencing those strategic decisions." (SD_44)</i> <i>"I've worked with great, let's say management consultants who are very open and very innovative and forward thinking really wanting to collaborate. But you know, I've also worked with some that, you know, thought designers are fluffy and that they can't think commercially... I think it depends on a lot on individuals. So I've worked with great, let's say management consultants who are very open and very innovative and forward thinking really wanting to collaborate. But you know, I've also worked with some that, you know, thought designers are fluffy and that they can't think</i>

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	what they want to do themselves - and some pretty hands off. “(SD_23)	way, like taking charge. So clearly, the culture of that organisation was like, Be decisive move quickly, like, let's go executing. The culture is not then conducive to giving time to let the problem breathe, and to think of different ways of solving it. So I definitely think whenever there's like grey, and you could take different approaches [design] the leadership set the tone for you and it's just because of the types of people who get to that position, right?” (S_12)	having also engineers education and management consultants kind of background, I never thought of those things that work. Or to me that was something that just happens. or we just go. But for the strategic designer, this was something to manage and plan and design within the workshop.” (S_43)	played a really important role in testing hypotheses and assumptions which were very commercial-led and they would have had we gone down certain paths which were very commercially focused, we could have been a huge amount of investment poorly, poorly spent, because we were sort of myth busting whether there would be appetite.” (SD_48) “If you've got a project manager that understands, you know, what design can bring to the table you have permission to contribute. But I would say it's, they're not great at collaborating so I can make a customer strategy or a design strategy, but can I work on the business strategy? It's very dependent on whether the project manager is open for collaboration.” (SD_24)	commercially... So stakeholder management and being able to talk and think commercially is really I think important for us to the strategic designer, especially because I also see that strategic designer often as the facilitator, enabler driver of those pieces of work. Yeah. And if you're not a credible stakeholder partner in that process, then then it becomes really hard.” (SD_33)
Traditions and organisational settings/contexts	Organisations undertaking strategic design have embedded cultures that foster and nurture design. The expectations are already aligned to traditions of design disciplines and are open to expanding models and tools or frameworks that allow designers to perform strategy projects well. This setting appreciates that new practices form with time and experience experimentation and application.	Organisational cultures integrating design thinking to support strategy work, do so with the intention of introducing new models to improve practices. However, not all settings/teams within organisations are ready to bring these practices in and the experience can be difficult for strategists as they must be accommodated within existing models and conventions of practices established within each setting. Strategists who work in strategy cultures that are open to experimenting with new approaches are more likely to adopt design thinking models and approaches.	Organisations are facilitating an exchange between strategic designers and strategists because they see the value in strategic design work. This means that strategic designers are structurally integrated into the strategy practice with the intention to co-develop strategy in some way. Strategic designers work into established strategy practices, models and cultures and traditions that do not inherently afford design approaches to work. The integration of design in strategy becomes a negotiation because strategic designers along with	Organisations have developed a design capability which is directed to support projects and initiatives in specific ways. However, it is not recognised or utilised in strategy teams as an embedded or integrated function. Strategic designers have agency to support strategists in their work in their role capacities. In these settings often an organisation has some level of design maturity as it has been building design capabilities across teams, and therefore values design approaches for broader strategic purposes. In this role strategists are responsible for	Organisations have design capabilities embedded within the organisation to facilitate innovation, research and development and the design of products and services. In some instances, design teams have been established to design innovative solutions with an intention to reduce strategic risk interventions begins from a future state vision or to address specific types of strategic issues. The act of designing things produces insights which the organisation has an opportunity to integrate to refine and shape strategy. The ability for an organisation to

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			strategists have to generate new conditions to provide the optimal circumstances for strategy and design to be integrated between different practitioner types.	the strategy development and structurally these roles are kept separate. In these roles strategic design is often located towards innovation and customer related teams.	achieve generative design towards informing strategy, is to develop functions and interest in the insights generated through design works consequential to strategy.
Selected quotes	<i>"I just work in a very design-backward organisation where there's very few people who understand anything about design. Not to mention anyone who could deliver a design-led project. I mean with all the best intention in the world, I couldn't do a design project there." (FG2_2)</i> <i>"For me design is in all of our work, like it's just being thoughtful when making things so whether you're, preparing for a conversation, , designing your program of work, designing your documents, your workshop design, your comms around your workshops, like all of that stuff is all designed, in my view, at least. Yeah. So I see design as like as part of the process. the way we do it is to serve the strategic process." SD_23)</i>	<i>"It's really challenging. I think it is more challenging to go from this highly scaled, very hierarchical strategy, forward classic consulting framework and truly embed design in meaningful ways because design isn't really very scalable. right. It, it doesn't have the, um, algorithmic nature that enables scale, it's subjective and it's qualitative. So it's easier for me to teach a designer strategy than for a strategist to learn design. Maybe that's not fair, but it feels that way to me." (S_6)</i> <i>"Having said that, you know, everyone strategy firms are pretty quick to jump on bandwagons, right? So, everyone I think it's rare, very rare to find a strategy consulting firm that doesn't use design thinking in its core approach... what I think you do find is out so we're talking we've been talking strategy consulting, but where you've got business leaders who aren't strategy consultants, right? That's not their trade, you know, their, their, their their executives, they might even be strategy executives. They may well be people who were brought up in a strategy consulting firm 20-25-30 years ago. And that that's when their strategy education was really formative. And it's very old school</i>	<i>"Design has probably become part of my practice over the last five years or so. At the moment, I also am lucky enough to have our human-centred design team in my strategy team. So I've got strategy, business architecture, human-centred design all together, which is a great cross fertilisation of skills." (S_25)</i> <i>"We were using Double Diamond, we did the first diamond. So we did a research, you know, we're like synthesising all the insights and then people were like, 'oh, we can't agree entirely we can't know this', or ' Oh, yes, there's some truth to that like. ' When we had clearly validated it already, we had our positives, we validated it. And then and then I was like; 'You know what? we need to embrace our design sense here and we need to make prototypes. We're going to do mock ups. It struck me that, I'm an environment that is so from designer – it's just, it's on the extreme end of low maturity." (FG_2)</i>	<i>"I think you've got a lot of people that just don't understand, like, where I fit as a designer and why I'm there. So, I have to do a lot of this user engagement thing where I'm trying to sell my skills ...So I've been positioning myself internally and externally with this is a different way of thinking which is lucky that design thinking does that already. Like they talk about it as a different way of thinking is thinking like designers." (SD_45)</i> <i>"We are a team of strategic designers and in the meanwhile not only our organisational changes have affected the kind of the possibility to work with a strategy or company... the Strategy Unit has been renewed, and the way of working has been removed... So some teams or some tribes are using designers to form their reasons and do that kind of "where do we want to go?" Sort of work, but that doesn't happen equally, everywhere. And the amount of how much expertise they use from the designers that are out there varies a lot." (SD_50)</i>	<i>"Everyone wants to do innovation these days and no matter what company you go to no one, no matter what client you work with, as a designer, everybody wants innovation. But most organisations can't really articulate exactly what that means for them and what that should look like and what kind of resources they should put into it and, and where it should fit in the organisation and who should own it and all of those sorts of things. So designing for innovation around risk, is a way to kind of start to place it and give it a way for innovation to have a more structured pathway. organisation so you know, the way a lot of organisations attempt innovation is is literally random." (SD_44)</i> <i>"And that's where we first like had this customer experience strategy where you had very clear like, you know, service propositions across the end to end customer journey. And it became then really how (because when you start to then define these service propositions across the journey) with going okay, how might that work? What would the key features be? And then what are the value drivers of these and what are the channels</i>

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		<i>and you do see that quite a lot.” (S_34)</i>			<i>in which customers are interacting with these service propositions? It then becomes then your True North, I suppose, you know, what everyone's working towards it really aligns teams transformation teams, to go well, you know, this is what we're actually going to be delivering and it starts to bring a transformation to life. And so that was really exciting opportunity, which we got to then present the board off the back of that the board Well, I actually we need to scale this we need to scale this way of thinking this way of working this way of doing things and we need to be much more customer centric organisation.”(S_37)</i>
Circulation of ideas and editing of ideas	The origins of design being applied in strategy arise from design education, or where practitioners have had deep exposure and practice integrating design into strategy (this may also include design thinking). As strategic designers are introducing an approach to strategy through designing, they are becoming carriers of new practices into their client/stakeholders' worlds, shaping their perception of what strategy can be.	Strategists begin to integrate concepts of design thinking through their exposure to working with designers at some point in their career, or because design thinking training and approaches have been introduced into their organisational settings. Once strategists have begun to integrate design thinking into strategy they are imitating and editing approaches as suitable for the contexts they work in and in view of their key stakeholder needs.	Strategists and strategic designers are engaging in a dynamic exchange of ideas, where strategic models and frameworks are being used to integrate design, design models are used to provide a framework to build a strategy project. Strategic designers become carriers of practice and support design thinking models and frameworks to demonstrate ways to bring design to life in management and strategy contexts. Strategic designers provide a representation of design practice that is the most authentic to traditional design practices, whereas design thinking models support articulation of what	Design is not always understood in relation to strategy, however ideas about human centred design, customer experience design and design thinking provide the knowledge and conceptual framing about how design may be informative for strategy. Design has become popular in management and the circulation of this idea arises through the development of design capabilities within organisations that see design in this capacity. The ideas of design are circulated by the designers as carriers of practice and discourse or cultures that support design as a strategic capability (including design thinking training etc). Their usefulness in strategy arises	Designers are carriers of practices and through their work demonstrate the relevancy of design outcomes of strategy. The ways design is used in generative capacities can also be linked to managers enablement as carriers of design ideas to support the linkages about design into strategy and the broader organisation. Managers become advocates and champions of design ideas, where strategic designers are unable to effectively engage strategy functions about the relevancy of their design-strategy links.

<i>Mechanism</i>	<i>Experiencing</i>	<i>Extending</i>	<i>Enhancing</i>	<i>Informative</i>	<i>Generative</i>
			design can bring, designers can demonstrate how.	through narratives within the organisation about how design generates value.	
Selected quotes	<i>"I think, you know, design wasn't what it was a few years after we started. So when we started, you know, there weren't executives had been to D. School, because the school I didn't even know was set up at that time when we kicked off. So it was trying to educate people about something that they didn't know about." (FG2_2)</i> <i>"The clients desire to learn could add another element - sometimes the engagement is, is that they don't really want to learn the design thinking process, but we want to ensure that they have the intuition and knowledge and understanding to carry the work forward, so that you're gonna get that engagement along the way. Other times, it's that and they're very interested in how we do it, so that they maybe can either continue on that project or do it themselves in the future. So you might have a little bit more of a learning focus with that." (FG_1)</i>	<i>"I began working with my new boss who just started making design or design approaches like design thinking, and human-centred design as kind of a winning skill set across the business. It warped over time, some of the things that we learned through early days was very much a trying to build new, pretty shiny things, new tools, services, new products that you could bolt onto the work." (S_22)</i> <i>"I think that Design Thinking has just become part and parcel how people [expect strategy to be done]. I think it's almost done to the point where it's almost overused and therefore diluted, right? Because people perhaps who aren't as skilled or trained, or sometimes they're kind of using in every situation where it, it becomes not as well used, right? As opposed to more deliberate choices and perspectives. (S_17)</i> <i>"I think design is just being term as the modern discipline of creativity and in design thinking is our attempt to processify the discipline of design to which itself takes away the magic of the process the process in it's in on itself, but it makes it easier for companies to buy because they still work and think that way." (S_2)</i>	<i>"I think that's the true value of design is when you can go in there and because we were a team of designers, but then we had the strategist and the business analysts around us to be able to take that patient experience and we did all the blueprinting that stuff, but then they could do all the financials around it and be like, well, here's the value of doing this versus not doing this and this is what this thing would mean versus this thing. And so they bought the business rebar to what we created but the starting point was actually us." (SD_18)</i> <i>"Yeah, and what was amazing was a similar thing kind of happened where they didn't really know how to use design to start with, but by the end of it, we were like, integral to the success of the whole strategy that we put together. And they didn't really understand what we were doing with the visioning and things but then the vision became the real front and centre of the strategy and kind of became the story of, of how people talk about it and the success of it." (SD_18)</i>	<i>"[At the strategy consulting firm] people just wanted me around, but people didn't really know why. They couldn't articulate it either, but they just kind of knew that they wanted me on their projects. Because I would say something interesting that no one else would say in a random moment, and it could shift everything. And so a lot of it is about how I see the world. The way that I am completely non-judgmental, the way that I'm compassionate, the way that I understand multiple perspectives, the way that I can connect dots. So there's lots of aspects of it. But it is kind of at the same time. It's hard. it is just who I am [as a designer]." (S_18)</i> <i>"But what is hard is that sometimes to communicate, like what is the use of design on that level for the strategy - it might be hard. Or like finding the touch points there. Like Sure. When we have like five different key areas creating value to the customer. There you can say like the design is here like this is exactly the area that we want to help you with... but we come with sort of with this big customer experience hammer and of course, good customer experience brings better businesses, but that doesn't get you really far with the business leaders, and often</i>	<i>"So there's one [role about providing] points within the strategy or innovation process that will allow for a strategic designer to come in and either really disrupt something or refine a concept depending on where you need them. That's one, the other one is, obviously be a voice of the customer and more of a true voice. And that can be done or it's largely done through research. And then the final one is to, be the translator of what did those insights mean from a business point of view or a concept or proposition? How, how do you find a middle ground between what a customer is wanting and what is going to make money?" (SD_30)</i> <i>"I think strategy is also about thinking about the future and thinking about like future proofing, but also being on the front foot and helping people imagine <laugh>. But that's where the design comes in, maybe the imagining part. So those are two examples. Like one of them is kind of like shaping a service and one of them is like trying to shape the system... because my hunch as well, and I've already seen this, is that people who are delivering children services are already thinking about this, are already adapting. And as an organisation</i>

<i>Mechanism</i>	<i>Experiencing</i>	<i>Extending</i>	<i>Enhancing</i>	<i>Informative</i>	<i>Generative</i>
				<i>because it's not really concrete or gets to the strategy level...design is oftentimes seen as a really very tangible thing." (SD_50)</i>	<i>that has almost a thousand services, we need to do more to learn and, and, and learn from our, our people but also support good ideas. So from a timeline perspective what would be—I've framed it as both understanding some actionable insights or opportunities, but also understanding more about our risks so that within our thinking, we can think about our budget and our priorities as far as what we might need to do to address both the risks and, and, and invest in opportunities over the next five years." (SD_15)</i>
Prototypes and templates	Each design strategy project forms a template about what design infused strategy can be. No one set template can be formulated as each design projects brings forward different sets and configuration of practices to meet the objectives of the project/contextual conditions and strategic issues being addressed. The desirability, feasibility and viability 'model is often used as a framework to address the full issues of strategy.	Design thinking models and frameworks reconstituted in organisational settings to explain how design may be successfully used in strategy projects. Development of time leads to templates of practice which may inform project plans or be used explicitly in project plans.	Models and approaches to integrate design into strategy manifest in project plans, and the way work is coordinated. Strategic designers often use the 'double diamond' to explain the design process, to contrast to strategy approaches. This can be overlayed on strategy plans to show why different steps are required across strategy projects. New practices are formed between models of practice.	Ideas of design are shared through models of design thinking. Templates are used to show where design is useful and what practices can be leveraged. The maturity of design as an idea embedded across can be discussed in relation to how much design appears in work across the organisation.	Objects produced as design things become templates for how design can influence strategy. For example, mapping the problems and stakeholder systems visually maps where strategic issues need to be addressed. These become mechanism to communicate hoe design can support strategy within a given context.
Selected quotes	<i>"There isn't an algorithm for how synthesis happens or how ideation happens through design. You couldn't drill it down to an algorithm in the way that that lean or Six Sigma do, but then it becomes this very performative, overly structured...it becomes a very constipated thing with no fluidity, no movement within it. And so, the more that you require the same process every time: 'this</i>	<i>"I think design thinking techniques have really brought structure and enriched that process. It becomes much more accessible for strategy consultants, rather than just kind of, you know, you're either this amazing genius because you just are or you're not, that there are actually techniques that you can use to elicit and unleash great design and facilitate great design with your clients well, because it</i>	<i>"I think the best the easiest way I've articulated this in the past is with a double diamond. Yeah. So when designers do that first diamond strategist, just skip it and go straight to the second." (SD_46)</i> <i>"The design-led, I mean, Double Diamond based strategy work where you'd iteratively work through that sort of 'discovery',</i>	<i>"You're balancing education and also expectations of what you what you do as a practitioner or what your methodology is or how you're going to go about it, but also you're probably educating about the project. Because it could be the case where your project is a bit sliced off from the company or a little bit different. And you might be sort of running your stream independently. So,</i>	<i>"I think in terms of tangible and explicit outcomes and conversations, the strategy team doesn't come to us and say, 'Hey, do you have any insights that can inform our strategy?'. And we don't send them email saying, 'Hey, we think this might be relevant for the strategy.' It's more of a I don't want to say incidental, but we share the insights from our work that get</i>

Mechanism	Experiencing	Extending	Enhancing	Informative	Generative
	is where we'll be on day seven, and this is where we'll be on day 11, and this is where we'll be on day 82'. Um, design doesn't work like that." (S_6) "... which is just hard for large organisations that really value reliability - the ability to replicate the same outcome over and over - and I think they [organisations or clients that value reliability] struggle with the very nature, the iterative fluid, creative nature of great design." (S_6)	needs to be co designed with the client, and that stands outside right. It needs to be co designed by your client and you with their customer and with their possible customer and with that sometimes with their competitors. Yeah. So I think at one level, good strategy is always needed design, another level that has become very much a more formalised part of the method." (S_34) "Firms are very savvy at looking for [leaders who have a good intuitive process or 'gut' feeling towards strategy] but for the other 99.99% of the population, who can still be great leaders and great strategists it really helps to have those design thinking frameworks for use in design and so I think that's been the revolution that design thinking is brought into mainstream strategy consulting." (S_34)	'definition of the problem 'that you know, 'design' and 'deliver' type of approach. We had an eight stage process that was effectively double diamond type of stuff. And you would iteratively be working through the layers of 'desirable', 'viable', 'feasible' to get to that answer. The consultancy we moved into, we would kind of start at that beginning and we would end with the definition of the strategy." (SD_19) "I think in consulting often you get hand handed blueprinting project so sometimes [the tools/models] are completely baked in - the supporting tools that you build it around - So I could get given a blueprinting project, we could go off and do the research and based on the research, we make a call about whether principles are actually the right tool to embed the research into decision making or whether actually the client is really not thinking about the different customer groups in a meaningful way. And that's going to be important for the solutioning later down the track, so you might do it. But then there's flex, rather than having a big main artefact, It could be a strategy, and then the [models are] how you articulate that." (SD_46)	there's both this education and expectation setting of what you're doing, and then what you're working on or why. Yeah. And then you probably just constantly repeating that because people don't listen... It's not really going to come to life until they say they really see it and feel it and can see the value or understand the value otherwise I think it can just feel a little bit too high level at time (SD_27) "So it's both the act of designing strategy and it's the act of designing things strategically. So when I say strategically, in the context of designing alternative engagement models and interventions at the service level. The ways that we think about the work strategically and how it can meet the needs of the various stakeholders that we're serving. So, issues like admin workload for teachers, experience for students, parents and carers...Designing strategically, is enabling us to consider those strategic issues and have been factored into why we're doing things how we're doing things and what we end up doing." (SD_47)	picked up in their collective mental model of what's important for students and parents based on what they're sharing with us. And that then informs the strategy that takes place." (SD_47) "I think as well the strategic side, right. It comes back to as well being able to put a process in place, whatever it may be, whatever methodologies you're remixing, have the kinda vision to, to kind of lead people along that help people, you know, the classics. Like feel okay when things are uncertain be able to try new things. I know maybe this all sounds fluffy, but this is the actual like dark matter of it and like, I'm not into, I'm really bored of a lot of traditional design methodology. Really like not a fan of journey maps and empathy map. Like, I think use whatever tools you want seriously. Like who cares as long as they work and as long as you're using tools that are like responding to the people you're working with,. So I'm much more into our practice as a way of working than a set of tools." (SD_15)
Directions of translation.	Strategic designers are translating ideas of strategy to develop the	Strategists are learning design thinking and applying it to strategy with minimal or no engagement	Strategists and designers are engaging in a dynamic exchange where both are translating	Translation is fragmented, design thinking and communication about design capabilities may be	Translation is achieved through the materialisation of design, and the effective communication of

Mechanism	Experiencing	Extending	Enhancing	Informative	Generative
(Which ideas of design are being translated and by who)	placement of design effectively is solving strategic problems	with strategic designers. The translation is enabled by modelling and adapting design thinking models to suit the practitioners' own style of practice and within the limits of knowledge about design established through design thinking models and training.	strategy or design practices within the setting they are in. Strategic designers are supporting the translation of design through practice and experimentation. The translation is enabled through experience. They are translating the design ideas into project settings for sensemaking and sense-giving purposes whilst also translating each other's skillsets and expertise as it may be relevant for their mutual project objectives.	received through internal training. Strategists develop a knowledge and therefore perception about design, but the enablement is informed by their own experience and approaches to strategy. Strategic designers are translating design outputs into documents and artefacts that support strategy work; therefore, they are learning how to best translate design for the use in strategy. Strategists are translating design outputs into the strategy. This is occurring in isolation and without designer input.	the strategic opportunities arising through design work. Strategic designers translate the strategic relevancy and translate the ideas of design through evidencing the relevance of design insights in view of strategy. Strategists are being exposed to designers and how they work and therefore opportunities are raised to translate and transfer ideas of design practice into strategy through interactions.
Selected quotes	<i>"But before today lots of designers didn't really understand what a company actually is. The awareness of the company, companies situation, what is company, and what is their present situation to be able to refine the problem they're bringing forward to actually understand the problem and help solve it. Now it's very different because you need more time to dig into and get insight about the company's situation and the problem and if you're a strategic designer and really actually understand strategy, you can also help develop strategies together with the company. You can also develop overall main strategies like business ideas, with purpose, vision, all of that, that they need, as an intention, and you can also participate in creating brand strategies, communication strategies and such things."</i>	<i>"I think the design approach has influenced strategy development enormously over the last many years. I've probably described a process which is very old school at one level, right and it's you know, it's the traditional analytical consulting method....And I think that that's really changed towards the design approach. But I actually think that really good strategy has always relied on design, as well as an analytics." (S_34)</i> <i>"You know, the whole, the whole process around design thinking – divergence and then convergence and then again integrating on that, diverging out, you know, exploring lots of ideas and then bringing them back together and coming to a consensus around, well what does this mean? So effectively, you know, designing the steps of the strategy process to ensure that you are iterating and you're working</i>	<i>"[Integrating work with strategists as a designer] It's not that it's not worth it, but it's not easy. I think it's made me a lot more pragmatic. In my earlier in my career as a designer, I was more idealistic and focused only on the customer. Working alongside strategists more closely has made me a lot more pragmatic about it. What drives me now is getting the solution to the customer. It's not the process anymore. And what that means is I'm more willing to flex my design philosophy based on the problem and based on what's going to get us to the outcome, than I probably was earlier in my career or before I'd worked with strategists. Equally. I think my commercial acumen is a lot higher than it was before I did this. So my ability to ideate for solutions and know if they're</i>	<i>"I was really almost fighting to include the time of the visual designer in a project, and a proposal that we did together recently, and I had to explain why that would be a good thing, because it was all about this one that the client wants to communicate to their client some different messaging, and they weren't even going to consider using a visual designer in that process just to help with that communication. My view is that there's got to be better ways of sharing information these days that we're just not exploring well enough, I think, especially with these complicated topics." (S_3)</i> <i>"When I was at a bank previous to this, everyone was quite siloed. And the design people were in a different swim lane and I would kind of go and play with them. And was like, no, no, you've got</i>	<i>"So when a nascent technology comes out, AI oh my god, AI is the biggest hit right now. And it's all about chat bots is all about like, all of a sudden design plays a huge role in conceptualising, taking the ambiguous new technology and figuring out what that happens. Then you need those translators and all of a sudden you'll see a whole bunch of businesses going; 'How about we do it this way, we can do it this way, and we can do it like this.' then you get the proliferation of the invention of all of the things and then there's this execution where we fine tune and focus on how do we improve the things that we're doing?" (SD_32)</i> <i>"And as a designer, I remember going I don't really understand any of this. I do not understand what these numbers mean. And</i>

Mechanism	Experiencing	Extending	Enhancing	Informative	Generative
	<i>That's what strategic designers' do today that they didn't do before. And not all strategic designer's make strategies, but it's important that they understand it." (SD_35)</i>	<i>and you're refining the elements of the strategy as much as possible, with the with the core team who's going to be charged within delivering the strategy." (S_17)</i>	<i>going to be commercially viable is a lot better than it used to be. And I think that helps a lot as well. Like, we work in businesses, there are some realities around that. If you want to stand up a new venture, it has to make money. But my job is to make sure that it's also not delivering a net negative outcome to customers as well." (SD_46)</i> <i>"The difference between a strategy consultant and the designer, because the other one is objective rationalist, and other one is somehow subjective to say, it has these kind of moral constructionist or constructivist approach and you need to somehow be able to bridge those two to or be able to jump from one side to another, then I think it is possible [to work together] but it requires at least some curiosity and openness, especially from the strategist - side you need to be somehow aware or notice that okay, this is not this is not everything there is more reality or more than making business than what I usually have seen how I usually do things." (S_43)</i>	<i>to be back in you're the kind of strategy swim lane, right? So since I've been here, it's a smaller organisation, which makes it easier to collaborate, but over time, I've been able to purposefully build these capabilities together." (S_25)</i>	<i>him [the operations manager] and I spent a lot of time not a lot, we learned from each other. Yeah, He understood the relevancy of customers... So that's the other role that a design leader can play is to really listen to understand what the operations are the corporate revenue operations, you know, person is doing and translate. So I'm very much being that the person around where that monetisation can happen, or ideas conceptually, around those KPIs." (SD_32)</i>

Appendix 5 – Paper 3: Strategy-in-Action Data Structure

Table 13

Data Structure, Strategy-in-Action

Core category: Strategy-in-action		
Aggregate dimensions	Second-order themes	First-order concepts as they appear in the data
Working holistically	Understanding the system	<i>Actions</i> <i>Systems thinking and systems action for change</i> <i>...recognising complexities and creating models to understand systems</i> <i>.. to involve not only their members but broader sets of community in articulating what the challenges are. and not from a single perspective but from a multiple-challenges-perspective</i>
	Identifying relations and connections	<i>Highest leverage points in the system that can collectively address problems</i> <i>pushing on and pulling on the constraints that are around a current state, to try and understand where you can actually create a new state by changing the system around you.</i>
	Identifying gaps in the system (micro and macro)	<i>You're linking [your strategic intentions) to your brand and your values and all that kind of good stuff</i> <i>...they can zoom out from the current bit of design work they're doing and work out how to connect the dots.</i>
	Mapping stakeholder needs	<i>..is building a collective view of the challenges experienced, the dynamics that are influencing that. And that's a whole range of socioeconomic and political aspects to that flows of funding, resources, mindsets, social narratives that are held.</i> <i>..If you just go down a few layers, they can tell you but it's how you can stitch all that together, frame it the right way..</i> <i>But there's also aligning with the system, which is leading the project, and then there's winning the hearts and minds of stakeholders</i>
Experimenting to generate insight and test ideas	Making sense by making things	<i>Do the levers sit together as a set? So that would be the kind of once you start talking to people drawing pictures of what they're saying making notes and basically just trying to synthesise what they're doing into some kind of representation.</i> <i>I love that designers can... and I think is very successful, is the whole 'show don't tell' – 'Seeing is believing'– 'prototype is worth 1000 meetings'</i> <i>Sometimes a poster might work better or standing up and talking...The simulacra of organised thinking, that is promised by things like PowerPoint is what is its fatal flaw because it makes, you know, it, it encourages weak thinking</i>

	Testing assumptions and biases	<i>...then iteratively design our concept, that that would be able to deliver on that and test that and everything.</i> <i>...like in the creative space and staying safe, you can then make those leaps, then you've got to kind of catch up and try to de- risk</i> <i>...really building a failure mindset, a testing and learning mindset into your whole methodology throughout, so that you are prototyping, failing, learning,</i>
	Feedback as a generative mechanism	<i>And getting, you know, more stand-ups and things like that and getting people actively involved and being able to put themselves in the shoes [of others].</i> <i>put the prototype in their hand, get in front of them face to face, take them to the train station to see the prototype or to see the challenge or use the ways you use in design and bring it to those other stakeholders</i>
Elevating humanity	Sensing into emotion and related interpersonal dynamics	<i>Winning the hearts and minds of stakeholders</i> <i>we have a respect for emotion. Because emotion is the basis of aesthetics</i> <i>We're masters at destroying any piece of information that's inconvenient to our sense of self.</i>
	Understanding needs, desires and usability	<i>You need to understand the actual user or intermediate - the people who sit in between - before you can actually move into execution</i> <i>Design begins, continues and ends with a real person and their real need</i> <i>different audiences that need to be convinced through the process</i>
	Being aware of power, bias and the need for inclusivity	<i>How do you actually drive an embed change...it's about then how to use it bring everyone you know, with you through that change?</i> <i>team of designers, but then we had the strategist and the business analysts around us to be able to take that patient experience and we did all the blueprinting that stuff.</i> <i>So, you're there to empower, not give people the answers. It's about helping them get there on their own.</i>
	Considering ethics	<i>you don't want to deploy something evil and then figure out that, oh, that was bad, let's not do that.</i> <i>when it comes to the information we keep, and I never felt it was necessary to make a statement on that before. So those are the kinds of things you can raise with the board</i>
Inspiring and considering future directions	Exploring future possibilities	<i>what you're doing is trying to get people to imagine something different or changed.</i> <i>future forward. strategic thinking. Strategic designers are great at looking at exploring the broader context and doing the research to understand what possibilities are to them in shape up scenarios or ways forwards</i> <i>...because you're designing for a future state. So, you have to be creative, you can't know everything. Or if</i>

		<i>you know everything, then it's a probably a pretty short strategy. So [design is] super powerful that way.</i>
	Expanding the scope by shifting minds	<i>We need to come up with something that is engaging, and we need to talk to everyone about it, right? The latter kind of piece always involves some form of communications, activations</i> <i>I think for me, a lot of the pleasure in design is that creative space of, of untethered ideas Holding lightly the 'to do' requirements</i> <i>We do little activities to push, push the thinking even just fun things to kind of shake it up a bit.</i>
	Asking questions that open up possibilities	<i>something a bit more breakout and fresh thinking tends not to come from that kind of financially driven perspective</i> <i>it was getting people to change their habits around asking the question, why/ not just settling for what they were given by the client.</i> <i>it was getting people to change their habits around asking the question, why/ not just settling for what they were given by the client.</i>
Responding to what emerges	Assessing gaps and unanswered questions	<i>You'll also see where the gaps in the processes that you hadn't even thought about</i> <i>Do the levers sit together as a set?</i> <i>Where you go, 'we're going to go here. Yeah. And we'll get there' - 'I'm gonna work with what emerges.</i>
	Developing strategic options or choices / levers for change	<i>I will ask a motivating how might be question. So you got a problem and say and do, how might we? So that I adopted that designerly way of thinking</i> <i>you can productively use the tools of design, the mindsets of design to create, build out, test, and scale those choices</i>
	Problem framing (re-framing)	<i>they would like reframe their approach their problem that they wanted to be solved</i> <i>How can we, you know, just think about things different - reframe the problem?</i> <i>because you've you're thinking about the problem and you're thinking about what is the actual problem we're trying to solve and you're getting people involved up front</i>
	Raising Hunches, intuition and developing (design) hypotheses	<i>I choose a model of mapping ...that we can overlay so we think about like what are the choices? Can we overlay the choices on this? Are all the parts there and then it's kind of an iterative process of taking out things that we're not going to be talking about...</i> <i>well, all these loose fluid, things can come together in this shape. And it's not rational because I'm making decisions about what shape that shape is, like. Its its proposals and recommendations and reform creative reformulations of things.</i> <i>Our work is always steeped in ambiguity. The problem itself the solution to the problem</i>

<i>Principles of practice</i>		
Exploring the topic dynamically	Explorative research practices	<i>I'm doing workshops is when I do those interviews, I'm just like on a whiteboard. And they're just throwing things out me.</i> <i>I've sort of suggested that we need propensity modelling. And that's really, really expensive to do</i> <i>Interviews? Personas, I created a few of my own tools, reframing seesaw. And this customer connections matrix.</i>
	Critical questioning	<i>To be able to think more deeply about impact and consequences, choices.</i> <i>Can anybody imagine another way? So, you try and get them to, to be broad.</i> <i>so, asking some of those critical questions much sooner so that clients are more successful in getting new things to market more frequently</i>
	Seek to understand connections (between elements, things and people)	<i>being able to draw connections and like, make new things. And like when you're like, why aren't we thinking about this? You know, why, you know, and, and there is potential in this space</i> <i>what do we see in that broader landscape? That actually then links with, you know, the human part of it or the customer part of it</i> <i>I think that designers are often very good at connecting the dots and providing a strong narrative, or why something should happen.</i>
	Synthesis and insight generation - Design abduction reasoning	<i>the ability to synthesise Yep. Which not many people do that well.</i> <i>Just try to understand the landscape, their own personal landscape and perspectives and what have you. Synthesise</i> <i>...because there's more time exploring and collecting data and looking for patterns and bringing that together...</i>
Makings things and designing experiences	Composition / decomposition of data	<i>Have meta information attached to them. Like sketches, or diagrams, or organising diagrams that is turned into a classification system in words</i> <i>... pulling apart documents and mapping the relationship between the issues, finding patterns to make sense of what is going on</i> <i>Print our interview transcripts, and put up butchers paper on the wall, use post-it notes ot extract the data , to just kind of go what do I think of the key themes and what I think fit into them.</i>
	Experiences and spaces	<i>the types of likes, experiences that you put the team through to enable them to kind of do their best</i> <i>We do little activities to push, push the thinking</i> <i>Workshop settings, I think through design you can help people through a process to think about things and kind of pre-empt how they might respond</i>

Communication devices and designs	<i>So I feel like the act of creating an architecture where you could emotionally ground people, let them imagine a future. Feel that tension if I've done my job</i> <i>... preparing for a conversation, designing your programme of work, designing your documents, your workshop design, your comms around your workshops.</i> <i>..for the final communication with the strategy, used visual designers to design the experience based on the strategy workshop outputs...I think communication of the strategy, can be really effective when done in a visual design kind of way.</i>	
Aesthetics to enrich engagement	<i>Design aesthetics is how unfinished you leave something so that someone can participate in if you put a slide up, you basically killed it, because they won't they will they won't question it.</i> <i>What do you want to do with your audience? So it's just, it's just a way of me rationalising that the relationship between crafts, like typography and colour and those sorts of things is a part of a whole.</i> <i>...designers are driven by creating beautiful solutions and that can be aesthetics, it can be the elegance of the solution...and that's our attachment to humanity that we are dropping off if we drop that off... and I think it's really important that those aspects aren't lost in the drive for design to be more engaged and integrated with business.</i>	
Generating shared meaning	Dialogue and communicating	<i>...communicating clearly. Thinking about the audience, What's something that we want this audience think feel do.</i> <i>Design as a skill set gives you a whole set of tools to make that a little bit safer, a little bit easier, a little bit less fixed, or certain and a bit more describable, it's 50% ideas and 50% communication</i> <i>...storytelling strategy and the sort of building of it, but even more, so the communication, implementation, ongoing pieces</i>
	Listening	<i>I'm just like on a whiteboard. And they're just throwing things out me. And I'm not trying to analyse it, I'm not trying to make sense of it. I'm just listening</i> <i>What's the heart of it is listening, you know, so too, and I don't think it's just to customers these days, I think organisations are facing into an increasingly diverse set of stakeholders</i> <i>I didn't want to kind of be like, This is what we're doing. I really wanted to seek first to understand.</i>
	Leaning into tension	<i>Using that tension to propel things forward</i> <i>... for the consulting team and one of them is about leaning into difficult conversations. But it requires us to build that relationship as well. And that takes time</i> <i>So, there's always going to be winners and losers and tension in that, design helps to navigate these.</i>

Facilitation as mediator and enabler	<i>zooming in and zooming out. Making sure they're always well prepared for what they're about to engage with.</i> <i>... you are a mediator. And so you use the scripting of conversations, live visualisation, heavy synthesis, to mediate...</i> <i>.. come in and assume that, you know, you guys aren't thinking about this in the right way and I'm going to help you discover why.</i>
inspiring imagination	<i>it was an opportunity to rethink, yes, I can imagine it and then also, at the same time, understand the constraints...then iteratively design our concept</i> <i>Designers are really good at just generative visioning. How do I get somebody to imagine what 15-20 years from now is going to look like.</i> <i>... bring in a strategic designer is to like disrupt the line of thinking either within a team or with a client...where you're really trying to like challenge the status quo.</i>

Appendix 6 – Paper 3: Summary of Polarities of Practice

Table 14

Phases of Strategy – Summary of Polarities of Practice

Strategy Phase	Scoping the project	Developing research questions, collecting data and analysis	Framing the problem, exploring the possibilities	Testing and refining choices	Defining choices and opportunities	Communicating the strategy/handover
Strategic designers Approach	The project is set up to allow immersing insights to inform the requirements for the project activities and the requirements of the strategy	Research is used to drive validation and identify directions. Research and analysis are used to inform the problem framing. Data analysis uses mixed methods and can be quite extensive. Strategic designers amplify the human voices in research and spend time looking for insights to inform project directions and strategic opportunities	The initial part of this phase is about exploring the problem in depth. activities become evident by seeking to understand the gaps in knowledge and understanding the context for strategy through early data analysis. The phase of data collection starts in this phase.	Qualitative research to test assumptions and provide evidence that opportunities will be supported and ensure stakeholders are on board with the proposed propositions early through involvement building immersive experiences and engagements with clients or customers	Choices are made with clients over a consultative period More emphasis is made on informing options that can change over time rather than foxed moves. The strategic choices are positioned as change and those impacted are considered in this.	Communicating the strategy is seen as enabling and embedding the strategy. This phase of work is elevated earlier in the process by ensuring key stakeholders are involved in the conversation earlier. Communication of strategy may be done in many different ways – Presentations through to experiences
Strategists approach	The project is set up to align work plans around a hypothesis. Emphasis is on establishing the ‘focusing question’ early. Most problem exploration happens at	Research questions are specific to the strategic questions already framed. Research is very focussed and contained, usually secondary and primary data with	Key tasks are formed in the scoping phase, strategy teams focus attention on providing and disproving what they know through data analysis.	Informing choices through analysis of secondary data, evidencing the best course of action and getting the client involved.	Creating the set of choices as a series of moves or scenarios for change. Strategists are the experts who assert the need for change.	Strategies are presented and discussed. Strategies are usually handed over as a PowerPoint for organisations (or teams) to implement.

	this phase of the project, setting a course for how the strategy project will then unfold.	stakeholder interviews. Some customer research may be done but where possible secondary data is used. Analysis is used to prove or disprove hypothesis and shape choices. Usually analysis is focussed on developing economic models to validate strategic opportunities.				
Differences	Solutions pre-defined, where a designer is seeking to develop an understanding option are already on the table	Strategic designers seek to undertake divergent research activities, that require time, effort and money. Strategists are set with analysis tasks, which are pre-defined with view to resolve specific questions formed from the hypothesis.	Strategic designers continue to diverge and strategists are ready to move forward – Strategic design insights reveal needs that are integrated into strategic analysis. Strategists have already establish solutions and opportunities, where strategic designers are satisfied with setting hypotheses as a ‘problem frame’ from which to solutions can then be defined.	Strategists seek to confirm the hypothesis; the choices are narrowed by the original hypothesis –the need to do extensive testing and research is not seen as necessary unless the hypothesis does not hold. Strategic designers build validation through testing, providing evidence that an idea should proceed. A strategic designer will test assumptions and issues to validate.	The degree to which organisations and relevant stakeholders have been involved in the process of choice definition and the ways these options may become operatable within organisations.	Strategic designers seek to build in more inclusive practices from the beginning with concerns about how the strategy will be implemented. Strategist seek to deliver a strategy in a PowerPoint document, strategic designers are more likely to create alternative communication materials which are designed to support implementation in more meaningful-connected ways

Appendix 7 – Ethical requirements for participant research

Participant Information Sheet and Consent Form



PARTICIPANT INFORMATION SHEET

HREC ref. no. ETH227116

The roles of design in strategy. Towards a practice perspective of strategic design

WHO IS CONDUCTING THIS RESEARCH?

My name is Leanne Sobel (leanne.g.sobel@student.uts.edu.au), and I am a doctoral student at the UTS Business School. My supervisor is Associate Professor Jochen Schweitzer (jochen.schweitzer@uts.edu.au).

WHAT IS THE RESEARCH ABOUT?

This research aims to understand the role of design in strategy by investigating how strategies are developed by strategists and strategic designers. The focus of this study is to learn about the specific activities, materials/artefacts and interactions involved in making strategy, which is what we call the study of practices.

WHY HAVE I BEEN INVITED?

You have been invited to participate because you are a professional with experience in strategy or design as an executive, manager, strategist or strategic designer.

WHAT DOES MY PARTICIPATION INVOLVE?

If you agree to participate, we may invite you to participate in several research activities. You may decide to participate in some aspects of the research and not others, including individual or group discussions about your experiences or observational research, where we study how you work in settings.

Research activities may include:

- Participation in a 1-hour semi-structured interview/focus group that will be audio-recorded. If the interview/focus group takes place online, the session will be recorded using video calling software such as Zoom or Microsoft Teams. Therefore, the interview will be audio and visually recorded. The purpose of the recording is to accurately document responses for data analysis. Please note we may invite you to participate in a follow-up interview to validate concepts that emerge throughout the research.
- Photographing you at work to document specific practices you are undertaking in your work. For example, this might include documenting how you produce work outcomes like visualising ideas or working with documents or presentation materials in a workshop setting, working individually or in groups in workshops or meetings.
- Observation of you at work over an agreed period of up to 4 hours per day. This may include video recording participation in a workshop setting. The purpose of recording is to capture the specific practices as they occur in relation to others and in various work situations as well as the documentation of materials that you are engaging with.
- Documenting artefacts (for example, drawings, post-It notes) created by you to support your answers to research questions or your work process in observational research. For example, these

might be diagrams used to explain the processes and interactions you encounter in your day-to-day work, key words you use to describe your work, or ideas and concept mapping.

We seek to understand more about how people work when developing strategies. This is not concerned with the content of the strategy per se but rather how it is produced through your work practices and those of your team in your work environment. As such, we are interested in questions such as:

- How do you undertake strategy or strategic design work, and what do you use to facilitate this?
- How does your strategy work involve others, and what artefacts are used?
- How do you reflect on your experiences, decisions, and interactions with others as part of your strategy or strategic design work?
- How have your practices changed over time?

ARE THERE ANY RISKS/INCONVENIENCES?

Yes, there are some potential risks or inconveniences associated with participating in the research. You may inadvertently feel pressured or uncomfortable declining participation in this research. Please note participation in this research is entirely voluntary and there will not be any consequences should you choose to decline participation. Should you not feel comfortable participating, the appropriate action is to decline the invitation. If at any point throughout the research activities you feel uncomfortable, you can withdraw from the session immediately and only restart again if/when you feel up to it again. You may also choose to decline participation and withdraw your consent at any point.

DO I HAVE TO TAKE PART IN THIS RESEARCH PROJECT?

Participation in this study is voluntary. It is completely up to you whether or not you decide to participate. If you decide not to participate or withdraw from the study, it will not affect your relationship with the researchers or your organisation.

WHAT IF I WITHDRAW FROM THIS RESEARCH PROJECT?

If you wish to withdraw from the study once it has started, you can do so at any time without having to give a reason by contacting *Leanne Sobel* (leanne.q.sobel@student.uts.edu.au). If you withdraw from the study, the information collected and shared with the researcher will be deleted and not used for analysis or any further activities as part of the research project.

WHAT WILL HAPPEN TO INFORMATION ABOUT ME?

By signing the consent form, you consent to the research team collecting and using personal information about you for the research project. All this information will be treated confidentially. Anything you say will be de-identified and not be attributed to you. All this information will be treated confidentially and kept on a password-protected server within a locked research office that only the UTS researchers can access. This includes all photographs, audio-visual materials, documents, researcher notes and interview transcripts.

We would like to store this information for future use in research projects related to this project, mainly focusing on the role of innovation mindsets/cognition in strategic innovation, building on previous studies undertaken by the researchers of this project. Your information will be treated as confidential and stored securely in all instances.

CONSENT FORM**HREC ref. no. ETH227116****The roles of design in strategy. Towards a practice perspective of strategic design**

I _____ agree to participate in the research project being conducted by Leanne Sobel, from UTS Business School, Building 8, 14/28 Ultimo Rd, Ultimo NSW 2007, leanne.g.sobel@student.uts.edu.au)

I have read the Participant Information Sheet or someone has read it to me in language that I understand.

I understand the purposes, procedures and risks of the research as described in the Participant Information Sheet.

I have had an opportunity to ask questions and I am satisfied with the answers I have received.

I freely agree to participate in this research project as described and understand that I am free to withdraw at any time without affecting my relationship with the researchers or my organisation.

I understand that I will be given a signed copy of this document to keep.

I am aware that I can contact Leanne Sobel or her PhD Supervisor, Associate Professor Jochen Schweitzer (jochen.schweitzer@uts.edu.au) if I have any concerns about the research.

Name and Signature [participant]

____/____/____
Date

Name and Signature [researcher or delegate]

____/____/____
Date

It is anticipated that the results of this research project will be published and presented in a variety of forums and can be shared with you in the form of a completed thesis document. The final thesis document will comprise of three journal articles and be accessible to you as a complete thesis (as supplied by the researcher) or as journal papers that are publicly accessible.

In any publication and presentation, information will be provided so that you cannot be identified, except with your permission. Confidentiality will be maintained through de-identified descriptions of work practices and scenarios, and general thematic descriptions of courses related to pools of data and themes arising from the complete data sets.

By relevant Australian and/or NSW Privacy laws, you have the right to request access to the information about you that is collected and stored by the research team. You also have the right to request that any information with which you disagree be corrected. Please inform the research team member named at the end of this document if you would like to access your information.

The results of this research may also be shared through open access (public) scientific databases, including internet databases. This will enable other researchers to use the data to investigate other important research questions. Results shared in this way will always be de-identified by removing all personal information (e.g. name, address, date of birth etc.).

WHAT IF I HAVE ANY QUERIES OR CONCERNS?

If you have queries or concerns about the research that you think my supervisor or I can help you with, please feel free to contact us: Leanne Sobel: leanne.g.sobel@student.uts.edu.au or Associate Professor Jochen Schweitzer: jochen.schweitzer@uts.edu.au.

You will be given a copy of this form to keep.

NOTE:

This study has been approved in line with the University of Technology Sydney Human Research Ethics Committee [UTS HREC] guidelines. If you have any concerns or complaints about any aspect of the conduct of this research that you wish to raise independently of the research team, please contact the Ethics Secretariat on ph.: +61 2 9514 2478 or email: Research.Ethics@uts.edu.au], and quote the UTS HREC reference number. Any matter raised will be treated confidentially, investigated and you will be informed of the outcome.

Verbal Consent Script



VERBAL CONSENT SCRIPT

HREC ref. no. ETH227116

The roles of design in strategy. Towards a practice perspective of strategic design

Interview	
Date:	
Time:	
Interviewer:	Leanne Sobel

Thank you for agreeing to speak with me today about the role of design in strategy, which will include discussing the way you work to develop strategy in your role. The interview will take approximately 1 hour. If you feel that you would rather not go on with the interview or stop at any point, that is completely fine.

[Wait for participant to confirm they are happy to continue, otherwise thank them for their time.]

Thank you. Now I just need to confirm some information about you, and I'm going to start recording the conversation as this is a zoom/teams call it will include audio and visual recording. This will help me to accurately record your answers accurately, but all this information will remain completely confidential. Is that OK?

First, I need to ask you some questions to confirm that you consent to participating. Remember, even after you've answered these questions, you can withdraw your consent at any time during the interview. However, it may not be possible to withdraw your data from the study results if these have already had your identifying details removed.

The consent questions are:

Question	Yes	No
Have you read the information contained in the participant information sheet or had it read to you in a language that you understand?		
Have you had an opportunity to ask questions and are you satisfied with the answers you have received?		
Do you understand that there may be risks, and while these are minimal I need to go through this. Discussing your experiences could raise issues that are emotional or distressing. You could also find participating tiring or a distraction from your work. If you feel uncomfortable in any way, you can withdraw from the session immediately, and only restart again		

if/when you feel up to it again. You may also choose to decline participation and withdraw your consent.		
Do you understand that the research will produce reports, academic work or articles and contribute to the thesis being produced as part of my PhD studies		
Do you freely agree to participate in this activity, with the understanding that you may withdraw at any time?		
Do you agree to having this interview audio recorded and transcribed?		
Do you agree to having this interview video recorded and transcribed?		

(If answered NO to any of these – clarify and/or discontinue interview)

If you have any concerns about the research you can contact my PhD supervisor, Jochen Schweitzer via his email address: Jochen.schweitzer@uts.edu.au

If you would like to talk to someone who is not connected with the research, you may contact the Research Ethics Officer on 02 9514 9772 or Research.ethics@uts.edu.au and quote this number HREC **ETH227116** *[UTS HREC Approval Number]*

If the participant declines to provide verbal consent:

Interview no. _____ read the verbal consent script (or had it read to them) and agreed to participate on date: _____ time: _____.

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