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GIULIA CALABRETTA
Delft University of Technology

GERDA GEMSER
RMIT University

INGO KARPEN
RMIT University

Introduction

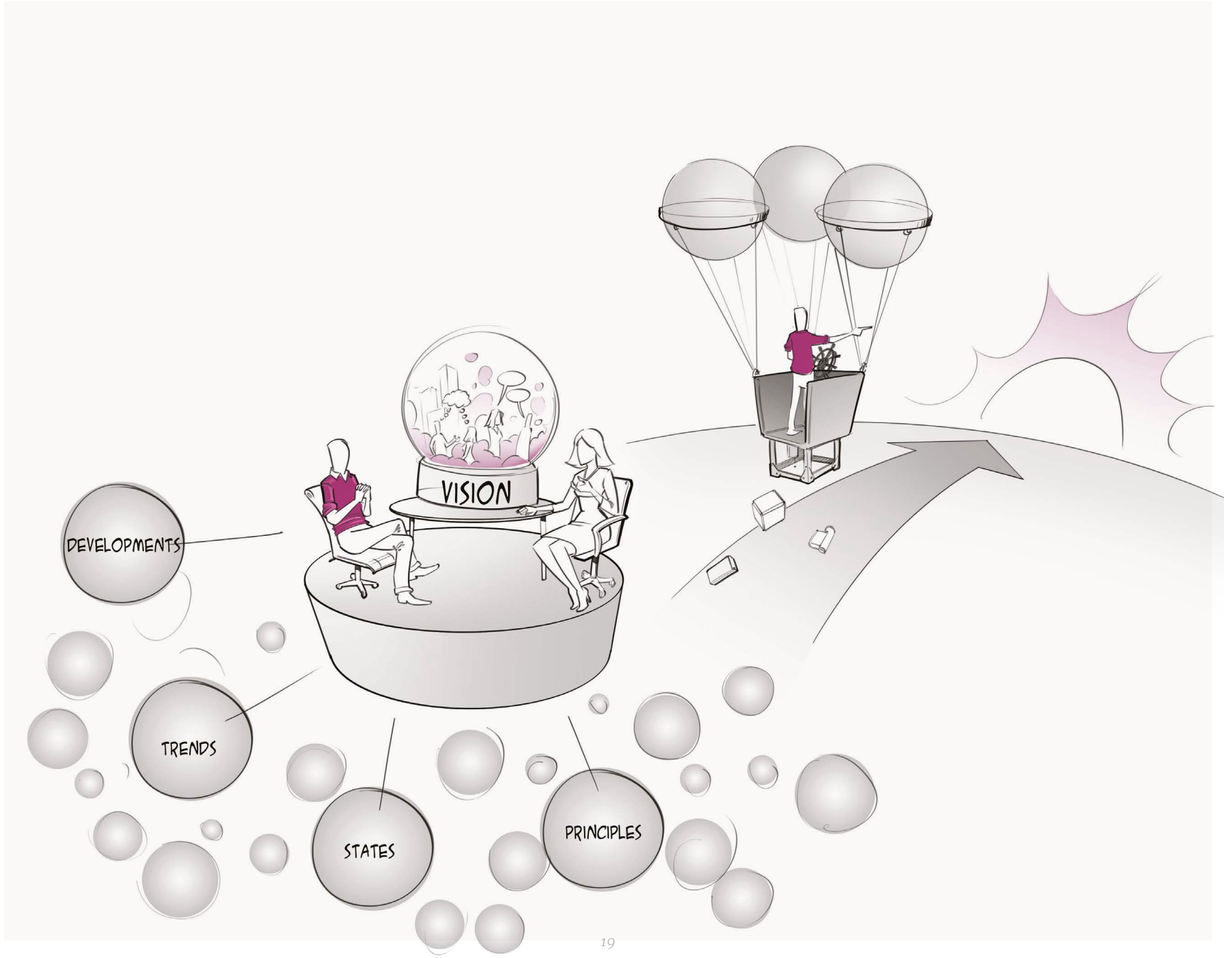
0.1

The increasing importance of strategic design

The scope and influence of design is expanding rapidly these days. Organizations are increasingly adopting a design approach to define and implement their innovation strategies, using design to leverage organizational transformations, and even embracing design principles as the overarching philosophy that guides their entire organization. There are more and more Chief Design Officers (CDOs) leading innovation activities and fueling internal design culture – Apple's Jonathan Ive and PepsiCo's Mauro Porcini immediately spring to mind. Organizations like SAP and Microsoft are using design methods and practices to transform their product/feature-focused cultures into user-centered ones. And global business consultancies like McKinsey and Accenture have recently begun to acquire entire design agencies to better serve design-driven client needs. Even entrepreneurship is bonding with design, as start-up unicorns like Airbnb are not only being founded by designers, but make design principles the core of their offering and growth strategy.

PART I

Setting the objectives of a strategic design project



Once you have defined the domain and scope, what's the next step?

'When the domain and scope have been defined, the designer then begins interviewing key stakeholders, and domain experts. Stakeholders are the decision makers and influential people inside the organization – including the people that designers may need to have on board in case the vision changes course later on. Interviewing them and involving them in the process will not only provide designers with pertinent insights, but that connection will reinforce organizational commitment to the outcomes. It is important for designers to understand the organization's perspective, and be sensitive to its needs and concerns. The goal is not to please the client *per se*, but rather to know when events are – or are not – proceeding in line with organizational expectations, and be consciously prepared to account for any actions that may deviate from these.'

'Besides interviewing stakeholders, designers need to decide if more input is needed. It happens that stakeholders also have the relevant expertise to reliably identify a domain's developments and trends, and other factors like cultural norms and customs. Other times, an external expert can be brought in to provide insight into the factors that have proven to influence behavior in the domain.'

What kind of questions do you ask them to start out with?

'The best way to get to the factors is indirectly, by starting the conversation and continuing the questioning in directions that both parties find interesting. Usually, an interviewee will at some point explain what needs to be done – what they see as the "solution" to a problem in the domain. I then try to find out how they came up with this solution. On which objective observations was this solution based? The goal is to be meticulous about separating "observations" from "opinions", to arrive at a value-free outlook on the domain. Opinions become important at a later stage, when discussing how the organization wants to affect this outlook.'

How do you know when to stop collecting input?

'Initially, the idea is to try to get a balanced mix of factor types – an even number of developments, trends, principles and states that shows diversity in the fields they pertain to. The final outcome is a wide range of cultural, sociological, psychological and technological factors that remain within the scope of the domain. When factors become redundant, that is a good indication that every avenue has been explored. We also ask the experts if they think the list is complete.'

You mentioned that this might lead to a list containing hundreds of factors. Is that workable?

'No, hundreds of factors are by no means workable. They need to be clustered based on the qualities and meanings they share, rather than by topic. The general direction emerges from bringing such disparate factors together. There can be up to 20 clusters, with some containing only one or two factors. The goal is to have as few clusters as possible without losing the

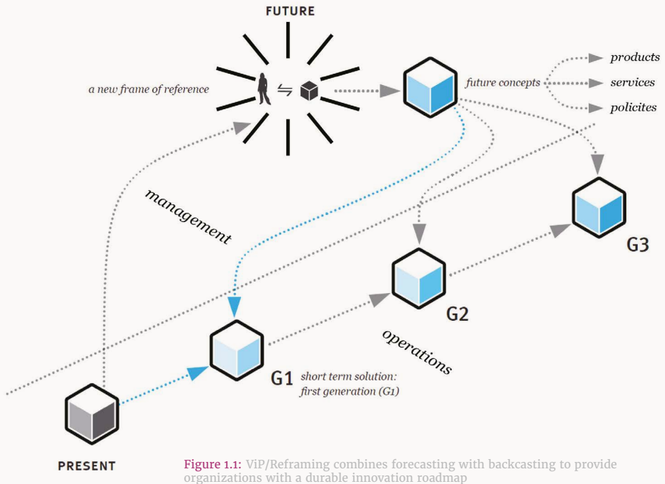


Figure 1.1: ViP/Reframing combines forecasting with backcasting to provide organizations with a durable innovation roadmap

richness of the individual factors. The clusters are presented as a kind of trend analysis report, and they are called the 'driving forces' of the domain. However, unlike the macro-trends in a trend report, the clusters are specific to the domain, and they consist partly of stable factors like cultural norms and customs, some of which are obvious but highly relevant nevertheless.'

Is that the vision?

'No, it's an intermediate step. Designers cannot really construct a possible future domain until they make sense of the relationships between the clusters, those driving forces. Do the clusters support each other, or do they compete? Are there abstract similarities between them? Designers should strive to distill the complexity of the future domain into a visualization – a model or framework of some kind that resembles the simple formulas scientists use to explain complex processes. We typically arrive at a two-dimensional axis model, or a four-field matrix. But a Venn diagram or pyramid might also be suitable. These visual frameworks portray the interplay of the diversity among possible behaviors that ultimately reflects the needs, desires and concerns that may emerge in the future of a specific domain. The framework is the embodiment of the vision, the *framework* is the vision.'

So you have a framework that reveals possible future behavior in a specific domain. Then what do you do with it? How do you put it to use?

'The designer and organization up to this point have strived to remain objective. Now the organization is asked to take

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GIULIA CALABRETTA
Delft University of Technology

PAUL GARDIEN
Philips Design

Co-creating and Prototyping to Trigger Innovative Thinking and Doing

2.1

Introduction

Embracing new business opportunities, changing an innovation strategy and pursuing radically new innovations are performance enhancers for any organization. Yet such measures are threatening, as they often introduce uncertainty and require risk-taking behaviours.

Managers and their organizations often resist these choices, thus stifling innovation in their companies. Managers think about themselves as rational decision makers, and like to follow courses of action whose outcomes they can predict and assess. This is not always possible with innovation, where intuition and leaps of faith are important triggers. Similarly, most organizations run smoothly thanks to stable infrastructures and consolidated processes – the 'performance engine' – which further facilitates a solid return on investment. Yet, however dependable they are, these ingrained processes act as deterrents to embracing the cutting-edge business innovations that would likely subvert them.

company and eventually to other players in the ecosystem. Design methods, the fostering of a designerly mindset and employing designerly modes of work have emerged as particularly suitable ways to ignite and consolidate change, given their ability to reduce perceived risks and make unconventional and unexpected futures approachable and even engaging. Design has created a framework, dubbed 'Co-creating Innovation', and developed a method within it, which we call the 'Rapid Co-Creation approach', to help us move forward. The Co-creating Innovation framework focuses on creating meaningful propositions for business opportunities in the ecosystem and, through an iterative process, enabling the company to improve and implement those propositions. The Rapid Co-Creation (RCC) approach aims at accelerating acceptance and implementation by translating the proposition into a prototype and iterating on it. (Calabretta and Perez, 2014). The Co-creating Innovation framework is visualized in Figure 2.3.

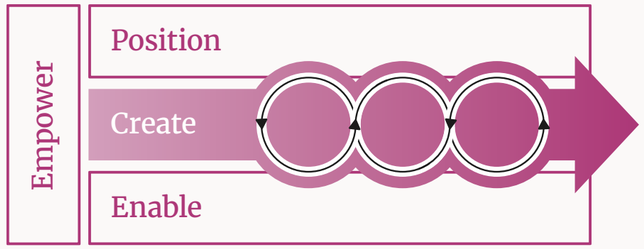

Figure 2.3: Philips' Co-creating innovation framework

The framework starts with a *position* stage, where different stakeholders identify relevant business opportunities and derive meaningful propositions to iterate on. Research findings from different sources and different methods, together with knowledge of current products and services and understanding of company resources, assets and capabilities drive the positioning stage and the creation of the proposition. Propositions are then regarded as hypotheses to be tested through RCC (the *create* stage), as only through experimentation and fast iterations can Philips really understand whether a proposition is truly relevant to people, technically feasible and viable for our business. In order to be carried out effectively, RCC needs to be supported by an infrastructure that enables the realization of the prototype, and any technical iterations it has (the *enable* stage). Such infrastructure includes, for instance, IT systems, hardware and software components and even privacy

policies. Given the iterative and non-linear nature of co-creation, the three stages run simultaneously. In parallel to them, the *empower* aspect creates support within the company for design-driven co-creation, and design thinking in general, by conducting training courses on RCC that are open to everyone – especially to people who do not belong to the Design community. This activity is fundamental to increasing the odds of a 'soft landing' for the innovative propositions and prototypes that may come out of the RCC approach.

Within the Co-creation Innovation framework, RCC is one of our core methods (see Figure 2.4) RCC best exemplifies the inspiring power of combining prototypes – strategic visualizations – with a co-creative approach. Different internal and external stakeholders are involved throughout the process, generating enthusiasm and commitment for the innovation outcome and its implementation. The RCC approach is not novel – it is based

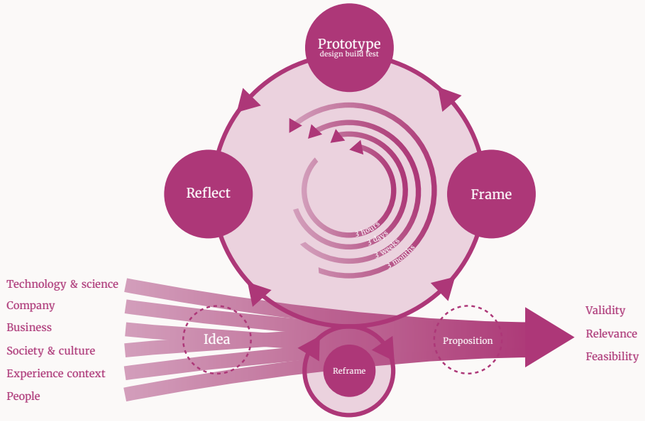

Figure 2.4: Philips' Rapid Co-Creation approach

on design thinking as developed by a number of eminent design companies and professionals, but for a large company with a manufacturing tradition it can be regarded as radical. Thus, Philips – and Design – is exemplar in the way it has renovated and upgraded these approaches in order to make them work within the Philips context.

Design started RCC in 2009, initially with the aim of establishing a structured

Main characteristics of the excellent executor

Characteristics: strong ownership / shared vision

Main challenges: not many

Leadership goals: getting it done!

Needed team members: small, motivated team, focus on impact

Type 2 – The excellent executor

Type 2 projects are the star projects. There is shared vision and ownership, what else could a designer wish for? This is the ideal starting point to be able to manage complexity and lead a strategic design process to successful completion. Indeed, the role of design leadership is limited to that of the *excellent executor* who takes care that the job is done in the most effective and efficient way, with the smallest, most appropriate team available. Methods like 'scrum' or 'rapid co-creation' (see Chapter 2) can help designers keep up the pace, the energy and the commitment needed to conduct this type of project.

Figure 3.4: A sketch of the 'e-gate' for Schipol Airport

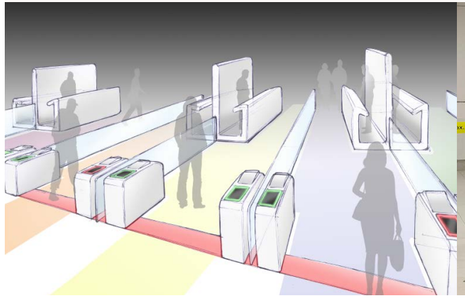

Figure 3.5: Self-service border control in use

Case: Schiphol, self-service border control

Context

Every year, approximately 60 million passengers pass through the border control area at Schiphol airport in the Netherlands. Schiphol asked several agencies to participate in a pitch to 'Redesign the Passenger Process' (RPP). The goal of the project was simple – improve passenger flow. However, the context was highly complex, given the considerable number of stakeholders involved and the extreme rigidity in the regulations and bureaucracy that characterize the airport environment.

Solution

The designers at Fabrique realized that in order to address such complexity and win the pitch, a strong project vision that reflected the project goals was the way to go. The agency did some extensive research and rethinking around the domain of border control, and presented a clear vision showing how the project objectives could be achieved. Specifically, the agency concluded that border control was a bump in the overall flow of operations, and passengers' experiences were not very favorable – the border check felt more like an intimidating criminal search. Thus, their vision was to turn the border control into a warm, welcoming area that led to the duty-free shopping zone. The vision was immediately embraced by the airport and all of the other stakeholders. The RPP project was strongly supported by the entire organization, and eventually a special innovation taskforce – the airport, the architect, a wayfinding specialist, the Ministry of Justice and the border police – took ownership, with the intention, mandate and budget to support the project. Subsequently, the initial vision smoothly developed into a feasible outcome – the 'e-gate' (see Figure 3.4). At one point during project development, the Ministry of Justice realized that the innovative e-gate could be useful at various locations, not only on at Schiphol. They took over the project, and 5 years after the first ideas were generated, the first real e-gates were installed at Schiphol Airport. Nowadays you can find them all over the world (see Figure 3.5).

Take-away

The rapid and successful conclusion of the e-gate project showcases the importance of establishing both a commonly shared vision and clear ownership from the outset of a project. The vision articulated in the process was smoothly executed thanks to a small, dedicated expert team that selected to get the job done. The team had the courage to make fast, risky decisions, despite the complexity of the airport ecosystem.

05

MARZIA ARICÒ
Livework

MELVIN BRAND FLU
Livework

Aligning the Organization through Customer Stories

5.1

Introduction

The business world is slowly waking up to the incredible potential design has to achieve impact for customers and organizations. Organizations are realizing that traditional ways of solving business challenges – process improvements, automation – do not lead to tangible benefits beyond a certain point. Design disciplines such as strategic design and service design, as well as methods like co-creation and customer journey mapping, offer alternative solutions that question the assumptions that subtend a problem, reframe the challenge and ultimately point towards unexpected solutions.

Yet this shiny façade of growing possibilities for design practice hides a much darker, more chaotic situation. Designers are trained to operate at the edge of business development, and thus many of them lack a profound understanding of how organizations operate day to day. Designers are often trained to explore and make sense of what organizations say they need and expect – they may sometimes be trained to perceive what is technically feasible, but very often have a limited understanding of what creates business value, and most importantly, how to navigate the organizational maze of politics, policies, processes, procedures and practices. The deficiency of their understanding becomes strikingly apparent during the design of new services, that, in order to be delivered, necessarily depend upon the coordination of a number of different departments, and often require organizations to effect changes to the operations that structure these domains. Failing to take into consideration existing organizational structure during the design stage will certainly mean failure at the service implementation phase.

Over our last 16 years at Livework, we have experienced all of this first hand. Livework is one of the first service design agencies in the world. Since very early in its inception, agency founders Lavrans Løvlie and Ben Reason have been shaping the discipline and practice of what is

CASE STUDY: telecom + banking, Russia

A Russian joint venture between a telecommunications provider and a bank asked Livework to design the customer experience around a brand new product they were developing. The product was a package combining a mobile subscription (including mobile phone) and a credit line (including a credit card). Russia is a cash-driven country where people are extremely sceptical about the very concept of credit lines, and where distrust for banks is very high. In order to facilitate the acceptance of credit cards, the client decided to develop a new product available with a mobile subscription. Their goal is a high volume of credit line activation and use. Their objective is therefore a long-term one – the product is extremely innovative in that specific market, so the project is highly strategic for the company.

The complexity of the service would reach every aspect of the business and require a level of collaboration between departments that exceeded normal operations. Senior management knew that following a traditional product development route would result in the launch of an immature service that was not properly supported by the organization. Given the market and reputational risk involved, we developed a customer story to guide the development of the service and prepare the organization to launch it successfully. The core of the customer story rested on three main pillars: enabling people to learn about the benefits of the service when it seemed important to them, getting customers to try it with an x dollar incentive, no strings attached – even hidden ones, and ultimately building trust over time so that people would increasingly start using it. The customer story became 'I was offered this great service, which did not only lower my purchase by x dollars, it actually automatically insured my purchase. The more I use the service or get others to join, the more benefits come my way. Since this sounds too good to be true, I'll start by taking the initial offer and see what happens…'

The business case for this service requires a high adoption rate and increasing usage over the first two years. The internal versions of the story therefore focused on the period that would follow the launch of the service. Given the complexity and the breadth of the project, multiple business units had to be involved. Therefore, different stories were designed to excite and engage diverse business units, with the ultimate goal of aligning them towards the same vision. Their role in the delivery of this brand new service also meant that there would be changes to the way their performance was measured. Table 5.2 provides a detailed explanation of each business unit, their general goal, the way they were measured at the time the project began, and the new measures to be introduced as per service implementation, a sample story used to engage them and a description of the effect the story was intended to produce. The content contained in the table was shaped by the Livework team using our knowledge of the sector combined with an in-depth analysis of the client's specific context and organizational architecture.

Table 5.2: Translating the customer story across different business units

Functions	General Unit Objectives	General Unit Measurement	Internal Story for the Service	Effect of the Story
Sales	To sell more via direct and indirect channels. Upselling, cross selling, contract renewals or continuation.	Current: Number of sales, or value of sales. To be introduced: Volume and value of people using the credit card. Not just activation but those brought on board long-term.	The service is completely new for customers. They will need help using it the first time, and clear direction regarding why they should use the service more frequently. The sale is no longer finalised when you close a contract.	The sales unit collaborates with other departments to help incentivize use of the service, and does not just sell the initial service.
Marketing	Organize campaigns, activities and events to reach general audiences or specific customer groups.	Current: Level of adoption, customer feedback, volume of new customers acquired. To be introduced: Level of adoption over two years. Word of mouth.	Customers need to be made aware of the service as being part of a mobile purchase. They need to understand the benefits of using the service frequently. It's not just about attracting but fostering future service use.	The marketing team designs campaigns that run for over 2 years, from the moment the customers signs up for the service.
Operations	Keep the business running and deal with issues that have an effect on operations.	Current: Time performance, number of incidents/defects, quality standards. To be introduced: Conversion to the next tier of usage. Frequency of service use. Any customer interaction should be skewed towards educating them.	Any customer interaction should be skewed towards educating them. Every customer contact should be focused on educating and incentivizing frequent use. Therefore an excellent service experience becomes necessary.	Customer support activities are redesigned from resolving an incident to engaging the customer in a conversation in order to make them feel comfortable enough to use the service more.
IT	Implement, support and improve IT systems, which run and support the business.	Current: Incidents and defects recorded, speed and accuracy of transactions, financial and operational performance. To be introduced: Provide cross-channel IT service.	Make it simple for the customer. Customers should feel comfortable using the service. We need to know who is using the service, how, and which incentive is the most appropriate in any given situation.	The data is pushed to all relevant internal departments as well as third parties who interact with customers. This enables the organization to be more proactive in approaching customers.
HR	Attract, retain and develop people in the business.	Current: Staff retention, satisfaction and (certified) skill levels. To be introduced: Customer satisfaction.	The service requires a high degree of trust, and therefore sales and support staff need to inform and educate the customer at the same time.	Special training of sales and support staff in how to inform customers and educate them without pushing them too hard.

This case is another example of *acting within*. The design team heavily invested in gaining a deep understanding of the client's business and organizational context, to maximise their ability to work within it.

Implementing radically new ideas often seems ‘too’ risky. In fact, innovation projects fail to be implemented because they appear to ask the organization to stretch their existing capabilities and resources too far. It is the responsibility of strategic designers and their team members to attenuate that sense of risk by demonstrating feasibility. To do so, strategic designers can follow the ‘resource/capability-gap’ approach (Donlon and Walmer, 2011) represented in Figure 6.3.

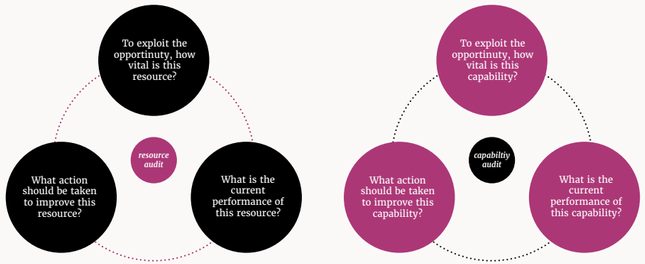

Figure 6.3: Resource/capability gap approach

The ‘resource/capability-gap’ approach requires, as a first step, identification of the resources and capabilities that are needed to effectively exploit the identified opportunity. It involves asking questions like: *What critical skills or abilities (e.g., being empathetic with the customer) are required from people involved to exploit the opportunity?* and *What are the critical processes (e.g., handling customer complaints) and technology requirements (e.g., software applications that support efficient handling of customer complaints) to exploit the opportunity?* Once a systematic inventory of necessary resources and capabilities is complete, the resource/capability gap can be measured, which means an audit of the organization’s existing resources and capabilities must be carried out. This audit not only needs to identify whether the requisite resources and capabilities are actually present in the organization, but must also rate the ‘performance’ or ‘quality’ of those resources and capabilities. An organization might have machines to manufacture plastic buckets, for example, but if those machines are out-dated, the quality of the machines as a resource is low. To be able to assess the resource gap, the design team may need to involve others in the organization and/or may need to spend a lot of time on the ‘shop floor’.

Once the gap has been identified, the final step is to devise initiatives to acquire or improve needed resources and capabilities that are lacking or that score low on performance. For example, successful exploitation of a new opportunity in the field of retail banking may require superior customer service. However, front-desk staff may lack the skill to ‘sense’ customer needs and wishes. The design team could then propose to train the staff in human-centric design tools and methods to enhance their empathic skills.

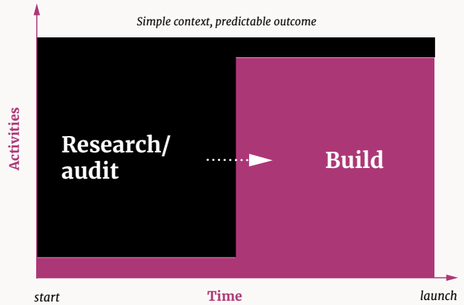

Figure 6.4: Think to build

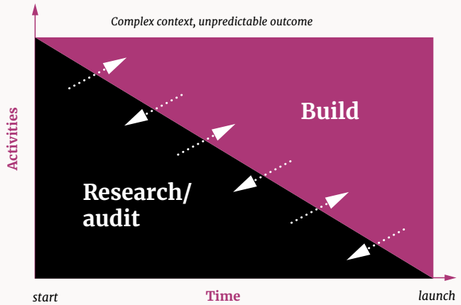

Figure 6.5: Build to think

Improving extant resources and capabilities does not necessarily mean building up internal resources. Another effective route – particularly if the organization is lacking in financial means – is to collaborate with external partners. As described in Case Study 1, exploiting a new opportunity may require that an organization shift away from serving the business-to-business market and move toward the business-to-consumer market. The organization would probably not have the marketing excellence and distribution channels to operate in a business-to-consumer market, but it could then collaborate with another organization that possesses the requisite resources and capabilities.

By helping the organization identify resource gaps and showing them how to close those gaps, strategic designers and their teams attenuate the risk the project may present, which increases the chances that the project will actually be implemented. However, as Case Study 2 will show, a resource/capability audit is not just a one-off activity. It is something that needs to be performed continually – especially if the project involves a radically new idea and a complex context – because it will be hard to specify up front the resources and capabilities that may be needed down the line. ‘Audits’ for complex projects need to be iterative and continue during the ‘building’ phase. Designers should then ‘build to think’ rather than ‘think to build’; Figures 6.4 and 6.5 visualize this idea. In relatively simple contexts, with relatively predictable outcomes, a comprehensive, upfront resource/capability audit makes sense (see Case Study 1); in a more complex context with more unpredictable outcomes, the audit needs to be an on-going process (see Case Study 2).

AirShr Bluetooth remote device
Pairs with the driver's smartphone. Drivers simply tap the button whenever they hear anything they like. The remote activates the app on their smartphone to capture the radio segment.

A small, inspired team
The core AirShr team: multi-disciplinary, collaborative, iterative.

6.4 Conclusion

This chapter provides strategic designers with insights into how to design for feasibility. In order to ensure that identified opportunities are actually implemented, feasibility needs to be explicitly taken into account during the design process. We suggested that to do so, designers may need to do a feasibility audit to establish the types of resources/capabilities that are needed to exploit an opportunity; examine whether the organization actually has those resources and capabilities; and devise an action plan if those resources or capabilities do not exist, or are of insufficient quality to actually implement the opportunity successfully.

As shown in the case studies, a feasibility audit can be done as a one-off, or be conducted in a more continuous, iterative fashion. Fully researching and understanding the feasibility requirements for complex projects may be especially difficult up front. The complex nature of a particular project like AirShr's digital radio service, for example, made it difficult to fully plan and design using traditional methods. An agile, iterative build-test-learn approach will help strategic designers to uncover feasibility requirements over time. This is what IDEO calls 'building to think'.

Another important message of this chapter is that co-creation with industry experts is of utmost importance to design for feasible innovation. For example, in the AirShr project, constant input from radio station experts was required to guide the design of its technology platform and content workflow. AirShr's solution would not have been feasible without input from these experts. In a similar vein, co-creation with the highly-experienced automotive engineers from the manufacturing company ensured the creation of a product that could be manufactured with little retooling of existing manufacturing capital, which was essential for the company's survival.