

Embedding service design: the long and the short of it.

Developing an organisation's design capacity and capability to sustainably deliver services.

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Abstract

What are the factors affecting how service design methods and practices are embedded within an organisation? How can embedding of design methods be done sustainably, providing lasting benefits? Over a four-year period, the author observed and studied a large public sector organisation as it developed in-house service design capabilities and strove to embed design thinking and processes within its business culture and working practices. The conditions necessary to enable innovation to take place within an organisation are not so dissimilar to those observed for embedding design, and for enabling design to be used effectively in the development and delivery of services. As with any innovation, the introduction of the practice of service design within an organisation requires a change in culture and behaviour: in this case, a shift in focus from the mechanics of delivery to include the experience of the customer. The in-house service designer is required to juggle long-term delivery of business strategy while creating short-term value to the business through project outcomes. A balance must be struck between the dissemination of design methods and processes within the organisation while keeping an eye on the long-term business strategy. The eventual goal being to effectively modify the organisational DNA of service delivery, where design methods are sustainably applied at various levels throughout the organisation.

KEYWORDS: service design, innovation, embedding, capability, sustainable

1. Introduction

What factors affect how service design methods and practices are embedded within an organisation, and how can it be done in a manner that is sustainable? That was the question posed in this study. There is little available research literature on what happens within an organisation when undergoing embedding of design capabilities and it was found during this study, that some of the most relevant research literature published on the topic was regarding innovation and innovating public sector services (Mulgan & Albury, 2003; Halvorsen et al, 2005; IDeA Knowledge, 2005; Taylor & Tofts, 2009). There are examples of professional cases where service designers have worked with clients to build design capabilities within an organisation and some of these were explored through interviews with Joe Heapy of Engine and Julia Schaeper at the NHS Institute for Innovation and Improvement.

Developing design processes and practices within an organisation requires a degree of innovation in the way it organises itself and goes about its daily business. It was found that the conditions necessary to allow innovation to take place within an organisation are very closely related to that for enabling design to be used effectively in the development and delivery of services.

The dissemination of design thinking and practice within an organisation requires a change in culture and behaviour: shifting the focus from the systems, processes and mechanics of delivery to take in the experience of the customer. The in-house service designer is required to juggle delivering input to the business strategy in the long-term, while also delivering value to the business through projects in short-term. For large organisations innovating change and new practices takes time and this can lead to frustration within the service design team: the long and short-term outcomes require balancing, and the resistance within staff to adopt change in working practices requires managing. This paper will discuss observations on the tensions created internally for a service design team, between the short and long-term goals, and will show how a balance has to be reached between delivering corporate strategy with running projects and internal workshops; where the designers can facilitate dissemination of design methods and processes. The eventual goal lies where personnel at various levels throughout the organisation are applying design methods, thus creating a change in business culture; essentially modifying their DNA of the service delivery.

Offering a critical reflection of the observations and findings generated over a four-year relationship with a public sector organisation this paper discusses the current insights generated from this study. The work presents findings on the conditions and practices that take place within an organisation during the process of embedding design thinking and methods to improve the design and delivery of services. The findings of this study have been generated from observations, critical engagement and reflections on the outcomes from a number of projects undertaken by the Product Design department at Glasgow School of Art with Skills Development Scotland, supported by interviews conducted with personnel within the organisation and external service design professionals.

2. An investigative journey

Skills Development Scotland (SDS) is a public sector organisation created in April 2008 amalgamating Careers Scotland, Scottish University for Industry (learndirect scotland) and the skills intervention arms of Scottish Enterprise and Highlands & Islands Enterprise. SDS aims to deliver a range of services that will help change the way people in Scotland learn, develop and utilise their skills, and to help businesses build their own capabilities to put these skills to productive use. Embedding design within SDS has been a journey involving support from the Glasgow School of Art (GSA) as well as service design consultancies, but most importantly through the development of an in-house Service Innovation Team within the Service Design and Innovation Directorate. This journey of investigation and innovation began when the organisation was still being conceived back in 2007 when the now Director of Service Design and Innovation, Jonathan Clark, approached the Product Design department at Glasgow School of Art to investigate using design methodology to improve customers experience. Thus began the journey from a commitment to the value of design and a conception of how it might be used, through the use of service design in different ways, to deliver a better understanding of how design should be implemented and what the organisation requires from it. The creation of the Service Design and Innovation Directorate within SDS reflected the commitment to implement a design approach from the outset.

Since 2008, the relationship between GSA and SDS has involved a number of student projects, internships and continuing professional development (CPD) (Bailey, 2010) and it is by critically reflecting on the outcomes of these engagements that has informed, developed and evolved our thinking on how design is embedded within an organisation. When considering which factors might affect how well the organisation embraced the introduction of design thinking and methods, some initial characteristics and behaviours were proposed to look for in the management and practices of the organisation. Initial hypotheses were proposed based on observations and from parallel examples of innovation in the public sector in published literature (Mulgan & Albury, 2003; Halvorsen et al, 2005; IDeA Knowledge, 2005; Taylor & Tofts, 2009). These hypotheses can be re-phrased in the following questions:

1. Is design readiness, the measure of how ready the organisation was to absorb design thinking principles and practices, sufficient to ensure successful embedding of design capabilities?
2. Is having an in-house 'design office' essential to disseminate design thinking and practices?
3. A change in business working practices and organisational behaviour are required to implement design thinking and methods. What mechanisms are required to facilitate dissemination of design practices throughout the organisation?

2.1 Design readiness

Absorptive capacity, as described by Halvorsen (2005, p.3), is the ability of an organisation to assimilate and make use of transferring technology. Halvorsen goes on to discuss how organisational absorptive capacity tends to develop cumulatively and that the process of innovation is likely to have begun before the introduction of the new technology and that the organisation will likely have had to procure, or develop, specialised skills in order to

integrate, or embed, the transferred technology. When discussing an organisation's capacity to absorb design thinking and methods during this study, we described it as *design readiness* - an organisation's capacity to absorb design thinking and methods. When trying to define design readiness the comparison with absorptive capacity was made; especially when design thinking and methods are substituted for technology. The cumulative absorptive effect described in Halvorsen's paper is necessary within an organisation to effectively disseminate service design thinking as similarly as if it were a new technology. In turn, this would hopefully lead to a change in business culture within the organisation by integrating design thinking and methods into their practices.

Initially it was considered that design readiness might be a measure of how successfully design could be embedded within the organisation but it became clear that, although there has to be an element of design readiness at the outset, this is not sufficient to determine whether design is embedded sustainably, enabling it to develop over time. Design readiness can be a measure of awareness and the potential to embed design, but design readiness also needs to become design practice and develop cumulatively within the organisation if it is to change the working behaviour in a sustainable manner.

To transform design readiness into qualities that can be actioned, design methods and practices must be disseminated throughout the working practices of the organisation. However there is a barrier here - *vocabulary*. It is insufficient to introduce design tools and methods without equipping people with a common vocabulary and with it the confidence to understand and communicate the use, process and outcomes of using these new tools. This finding parallels our experience at GSA when developing the teaching of service design within the product design programme. When the students were equipped with the necessary vocabulary to communicate their service design propositions effectively, they gained confidence and were able to discuss and defend their proposals. Similarly, the design tutors were better equipped to critique and assess the work and to provide feedback that was commonly understood.

Design readiness on its own is therefore not a sufficient measure of an organisations capacity to disseminate design thinking and embed design methods.

2.2 Dissemination of design thinking and processes

Innovation makes use of learning (Halvorsen et al, 2005, p.1) and it is through the application of teaching and learning methods in parallel with business practices that design thinking and methods can be more effectively disseminated throughout the organisation. It is often assumed that when consultants hand over a service design blueprint, or an in-house service design team delivers a set of tools, that the recipient staff will be able to apply them in a meaningful way, or that they can translate the service blueprint into appropriate project plans. It has been observed that the application of tools or methods is not enough without the appropriate design thinking that underpins them. Mulgan and Albury (2003) discussed how integration and implementation of an innovation often fails to achieve the anticipated results when delivered by an external agency, or that the understanding of user needs was not shared or clearly understood by the rest of the organisation attempting to implement the strategy. This can often be a source of frustration to the service designers (in-house and external) when delivering a service proposition and seeing the implementation stall. This source of resistance emphasises the importance of developing innovation and design capabilities within the organisation and not solely with the in-house service design team. Mulgan and Albury (2003, p23) go on to argue that generating new propositions and

processes for testing new ideas is generally not a weakness within the public sector, but that it occurs in the dissemination, replication and scaling-up of pilot projects and prototypes. Design for services has particular value here in being able to support the innovation process, providing the tools and methods to visualise strategies and develop service prototypes for user testing.

Within the context of this study, successful dissemination of service design capabilities was observed when in-house staff passed on their knowledge and processes through projects and workshops. By teaching others, they in-turn were reinforcing their own knowledge base and building confidence in applying design thinking, tools and methods in their everyday work practices. As workshops are usually designed to be hands-on, participants gain first-hand experience of the application of design thinking and in the tools and methods used in the process.

Another effective method of raising awareness was found to be through communicating design processes via communal spaces, posting work on walls of offices, etc, to encourage debate and discussion amongst colleagues. It seems appropriate, therefore, to utilise in-house service design teams to engage relevant staff members in workshops and projects to facilitate the dissemination and practice of design throughout the organisation.

2.3 Designing for behavioural and cultural change

Halvorsen (2005, p.10) observes that 'although institutions are the result of human activity, they are not necessarily products of conscious design.' This hints at an opportunity to develop in-house design capabilities able to apply design consciously to achieve targets set out in business strategies and, more importantly perhaps, influence the creation of the strategies themselves.

As discussed above in 2.2, behavioural change can be initiated through raising awareness of design practices and disseminating design tools and methods through projects and workshops. During the course of this study, further development of staff knowledge and learning was supported through Continuing Professional Development (CPD). It was observed that when members of staff shadowed projects, or were mentored through projects they were working on by tutors from the design school, that there was a greater confidence shown by staff in the use of service design terminology and in the communication of their thinking through design tools and methods. CPD also helped provide some of the theory underpinning what the service design staff were practicing and providing them with techniques and tools with which to run workshops of their own. The knowledge and skills developed during CPD courses were brought back into the organisation and passed on through collaborative working practices.

Although training and development of skills is valuable, it was also recognised that it would be easy for staff to revert back to previous behaviour patterns and business practices if they were not encouraged to continue applying these newly acquired design methods, or rewarded for doing so, by their line managers. This is one of the barriers cited as affecting innovation within public services (Mulgan & Albury, 2003; Halvorsen et al, 2005; IDeA Knowledge, 2005). Support has to come from all levels of management if a change in culture is to be achieved and sustained.

Design provides tools that encourage visualisation and communication of ideas as well as methods for clearly engaging with users and other staff members. However, due to the pressure service managers find themselves under dealing with the day-to-day delivery of services they often have little space to think about doing things differently (Mulgan &

Albury, 2003, p.31). It is important therefore that managers are afforded the time and space to develop an awareness and understanding of the use of design thinking and methods in order to support their staff. This will also enable managers to report efficiently to senior management and to directorate level on the processes used by their staff and the outcomes achieved; further disseminating appropriate design language and methods.

3. Reflections, propositions and conclusions

In section 2, initial assumptions were proposed and investigated for what might constitute the factors and conditions affecting how successfully design is embedded within an organisation. Through critical evaluation of the projects undertaken and reflection on the work being carried out by others within the organisation it became clear that there were more factors to be considered. The key findings from this study, as currently understood, are presented here. The three research questions posed earlier in section 2 have been developed into the following propositions for conditions required to disseminate and embed a design culture within a service organisation.

3.1 Design readiness

Recognising that design has a place and that it will be useful as part of a suite of business tools to improve delivery of services is a crucial step for an organisation. It requires vision and support from top-level management to recognise the need for a design approach, and to put in place the factors that will allow it to happen. Similar to the case for Skills Development Scotland the organisation needs to develop a business strategy that places innovation and design at its heart and putting in place in-house champions, the people that will make it happen, and recognising what external input is required to support the in-house personnel. In this case, SDS built innovation and design into the business model from the beginning, leading to the creation of an in-house service design and innovation team.

The NHS Institute for Innovation & Improvement whose purpose is 'to support the transformation of the NHS, through innovation, improvement and the adoption of best practice' promote design-led working practices. Their stated mission 'to enable and support the NHS system to transform health and healthcare for patients through a strategy of creating inventive, clinically-led and tested practical ideas which will build skills and capability for continuous improvement and support for leaders to drive real and lasting change'. Similarly to the set-up of SDS, the NHS Institute embodies a Design and Innovation team to support innovation. Early in their development the NHS Institute worked with IDEO to develop design-based, human-centred innovation work processes.

For both these organisations, design thinking has been at the forefront of their inception. Similarly, both organisations have specialist design teams to support the dissemination of design practices in the development of innovation in service delivery. For both cases there is directorate support for design readiness, but from interviews with Tony Coultas (SDS) and Julia Schaeper (NHS Institute) it could be seen to be difficult to keep design methods at the core of daily work practices where employees would prefer to return to their old familiar practice which may be more system-led than design-led. Also, even if the original intent was to have an integrated design team, it was noted that the design team could often feel apart from the rest of the organisation. The feeling of *alienation* for the designers was often a result of a resistance to adopt or encourage design thinking and processes within the organisation.

However, the perceived separation of the design team can also be of some benefit, allowing them a certain degree of objectiveness within the organisation.

Having design-led thinking instilled in the business plan does not necessarily translate in the short-term into a design ready organisation without continued support and encouragement from top-level management. It takes time to disseminated design processes and methods.

3.2 Common vocabulary and language

As discussed earlier, design readiness in itself is not enough to sustainably embed design thinking and processes. A common design vocabulary and language is required if people within the organisation are going to be able to understand and communicate what they are doing, why and how. It is the scaffolding upon which to build the culture of design within the organisation. Design vocabulary might use terms that sound familiar, but the meaning can be subtly different. Dissemination of a common vocabulary of service design, and the concept of what it is, is important if design tools and methods are to be used and applied consistently. To be integrated effectively, a design vocabulary and language should also respect the business language currently being used and provide a bridge between the two, thereby tailoring it to the organisation.

When those within the organisation know how to communicate what they are doing, it builds self-confidence and they are more likely to continue applying these new tools, methods and processes. As familiarity with the use of a design language grows it will become more integrated into the business language and practice of the company. At this point, it begins to become part of the business culture.

3.3 Dissemination of design thinking and processes

Once a common working vocabulary has been acquired, the dissemination of design thinking, the use of tools, methods and practices becomes much easier. Discussions and debates become more meaningful and insightful and the translation of service design propositions and blueprints into practical projects becomes more effective. Tools in themselves are insufficient; they need to be contextualised within projects where their use can be understood through the process of application.

The visual communication of processes, the introduction of the use of tools and methods in workshops, the experience of design processes within projects, all help to create the conditions where the dissemination of design thinking essentially goes viral within the organisation.

3.4 Getting and keeping management on-board

As discussed earlier, management can have a large influence on how effective design thinking and practices are disseminated across the organisation. If there is a sense of a lack of trust in the value of design and support in the use of design from management then it will not be long before design practices become nothing more than an add on, if they remain at all. By integrating design thinking into their management style, managers encourage the use of design amongst their staff.

When under pressure, it is all too easy for managers to revert to the business practices they were trained in and to neglect the value and use of design thinking. Managers can use design methods alongside other management tools as part of their planning and implementation and for communicating strategies to staff.

As a way of facilitating the uptake and embedding of new working practices across the NHS Institute for Innovation and Improvement they have produced a set of guidelines and information detailing the NHS Institute's *Work Process* that it aims to embed as the norm across the institute. In this way the organisation is validating the use of the new design-led processes.

3.5 Re-interpretation and development of tools and methods

When staff are confident in applying design thinking and the use of design tools they will naturally begin to re-interpret and re-design the tools and the application of them as required to fit new situations. At this point, staff members are no longer following guidelines but responding to the needs of each situation, adapting and designing the tools they will need and how they will be used to achieve a proposed outcome.

The replication of design tools and methods should be encouraged to include the necessary mutations required for their application under new conditions. Like DNA the tools need to evolve.

3.6 Functional learning and delivering value

During this study and through interviews with Tony Coultas at SDS, it became clear that it is important for an organisation to develop what we termed 'functional learning' - the ability to deliver value to the business while learning how to deliver and develop the service offerings. This in turn requires the service design team to rationalise the short-term delivery of value with the long-term delivery of business strategy. There is an essential need to balance these potentially conflicting points of view.

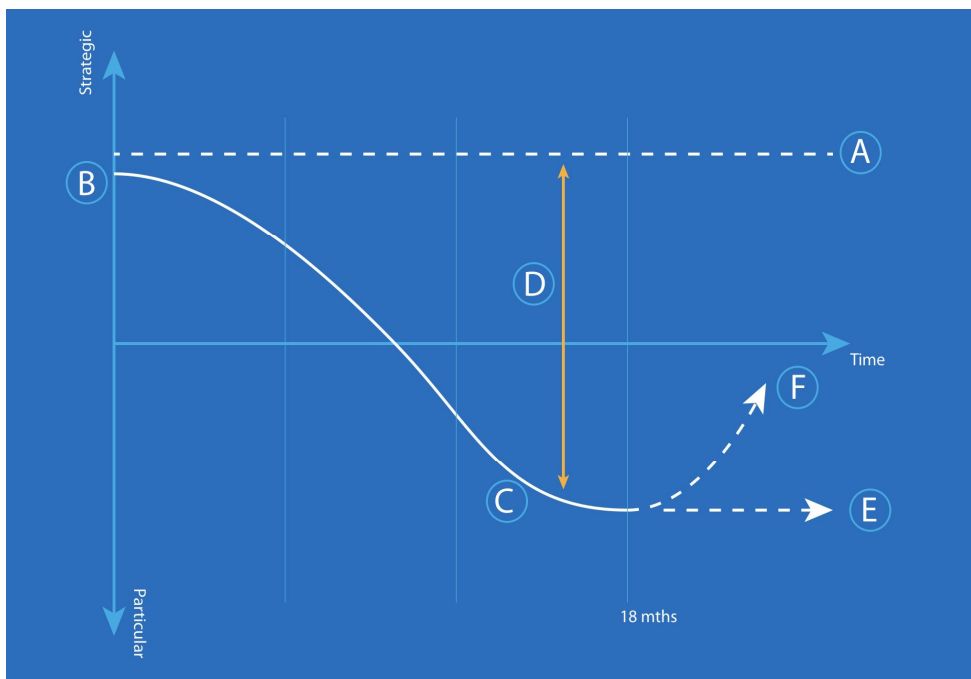


Figure 1. Rationalising the balance between 'strategic' and 'doing'

Service design straddles both the strategic (theoretical) and the particular, or practical, approaches. At directorate level, the organisation would like the service design team to

operate at the strategic level (A). When created the Service Design & Innovation (SD&I) team within SDS developed strategies for how they might develop and deliver services (B). After some time it was also important for the SD&I team to deliver value to the business by supporting the delivery of project outcomes (C). The tension between the two (D) can breed dissatisfaction in staff being pulled in two directions. Some designers are comfortable working at a strategic level while others prefer to be doing but often the organisation will make demands to do both. After a period of 18 months, it was recognised that a crisis point was being reached - how to switch back efficiently to develop strategy (F) without dropping the practical delivery of projects (E). The SD&I team realised that they would have to design a good, clean exit strategy to be able to return to developing business strategy while using any spare design capacity to support the practical projects.

By doing, evaluating and reflecting the service design team learned from these experiences and were able to adapt the way they delivered value to the organisation.

4 Building capacity and embedding design

Being able to interpret a service blueprint is not enough; you have to be able to make it happen. Developing the skills and knowledge of service design thinking, tools and methods within the in-house service design team is not enough to embed design within an organisation. It was not sufficient for the service design team to simply translate service blueprints into project plans, the service design team also had to treat other departments within the organisation as service users as well as service providers. They recognised that they were delivering a design service in addition to helping develop service provisions with these other departments.

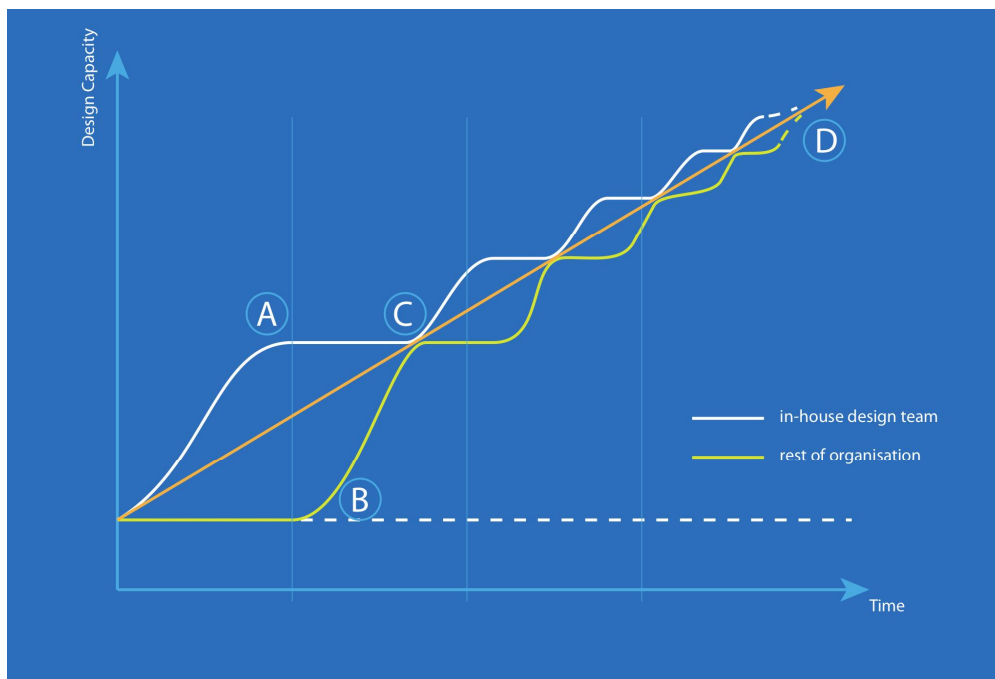


Figure 2. Building capabilities of in-house design team and the organisation

As the in-house design team developed their own design capabilities (A), they soon realised that the organisation was not yet developing its own design capacity (B). At this point the SD&I team within SDS engaged with other project teams to develop their service offerings.

The team ran workshops and training sessions with project groups within the organisation. These workshops not only helped disseminate and embed service design thinking and methods, they also allowed the service design team to learn more about how the organisation really worked, what needed to be done and how it could be improved. Having reached a convergence of capability at (C) the service design team was able to re-evaluate their strategy for moving forward. The goal eventually would be that both the in-house team and the rest of the organisation would continue to develop and embed design capacity but without as great a lag as in the initial phase. In time achieving a convergence and a fully embedded design culture within the organisation (D).

4.1 Moving forward

The journey has now reached a point where the Service Design and Innovation team understands that it has to ensure that the service design capability throughout the organisation is developed to a level that allows them all to move forward together. Not just developing the in-house service design team and leaving the organisation behind.

A key factor in the successful development of service design within SDS so far has been that the team has been allowed to *fail*. Support from director level has enabled the service design team to develop and innovate how service design is embedded within the company. Furthermore, the in-house team has developed the ability to deliver value to the business while learning how best to deliver and develop the service offerings - what has been termed here as 'functional learning.'

The designers, as well as the organisation, have had to remain patient and work the long strategy game while engaging with short-term projects that help disseminate design thinking, methods and processes. Disseminating an innovation culture while gaining insights into what innovation means within the organisation.

Embedding a design culture has a long gestation period - it takes time!

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