

Design of services or designing for service? The application of design methodology in public service settings

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Over the past decade, there has been growing interest in the theory and practice of design in the public sector. Service design aims to improve the experience of public services through a human-centred, iterative and collaborative process of creativity and problem solving. However, there is a lack of empirical research on the application of design approaches in public service settings. This article aims to fill that gap, drawing on service research and empirical illustrations to explore what is being designed, how service design is practiced, and the implications of service design. By applying ‘design of services’ and ‘designing for service’ perspectives, the focus of design is discussed, along with its implications for design practice and impact. While the analysis suggests an important shift in the practice of design with a focus on *services*, it proposes that applying design for service may further the potential of design and support deeper transformation. In this way, the article makes a significant contribution to scholarship on policy design, as well as public service delivery.

Key words: design; public services; human-centred; service experience; policy design; public service delivery; public management.

Over the past decade, there has been growing interest in the theory and practice of design in the public sector. Academic literature has focused especially on policy design, with recent work exploring how design thinking (Lewis et al, 2020), collaborative design (Bryson et al, 2020) and public sector innovation labs (McGann et al, 2018) support innovation. The implementation design approaches to transform public services has also been in receipt of attention in the fields of healthcare (Donetto et al 2015) education (Dietrich et al, 2017) and urban development (Wallin et al, 2010). There is, nevertheless, a lack of empirical research exploring the application of design in practice (Hermus et al, 2020). Furthermore, previous research has concentrated primarily on the transformative potential of design on internal organisational processes, structures and cultures (Dietrich et al, 2017; Yu and Sangiorgi, 2018). Far less attention has been paid to what is being designed and its impact on value co-creation. We draw on service research and empirical illustrations to discuss design's transformative potential when positioned from two different service perspectives: *design of services* and *design for service*.

Conventional models of public service reform have located the practice of service design as the relatively unconscious and internal pursuit of public managers, positioned as experts or innovators and responsible for developing new or improving existing services (Kimbell, 2009). However, the reliance on the transformative capacity of professionals to improve public service delivery has been reproached for its paternalism and its dismissal of the expertise of those using public services (Blomkamp, 2018). Similarly, the disproportionate focus of public service management on the internal efficacy of business processes, rather than on embracing the experiences of and outcomes for service users and society, has been in receipt of criticism (Nabatchi, 2018). Design methodologies rooted in participatory democracy theory (Einfield and Blomkamp, 2021) and emphasising co-design with service users and other stakeholders have been advocated in response (Trischler and Scott, 2016). The literature focuses predominantly on processual elements of design, endorsing it as a collaborative, agile, goal-orientated and multi-disciplinary approach, with normativeness at its heart (Schwoerer et al 2022). Focusing on service design, we argue that while the design methodology has potential to transform the design process and output (Howlett et al, 2015) to fully understand design's transformative impact we need to understand the process of value co-creation.

We start by considering the main characteristics of design, before drawing on the service research to outline two nuanced conceptualisations of design depending on what is being designed: services or service (Kimbell, 2011). We argue that this conceptual differentiation has implications for the practice and impact of design. Drawing on two case studies from the United Kingdom, we offer an empirical illustration of the conceptual distinction presented, but find that design in practice focuses on the re(design) of service outputs. The following analysis and discussion contribute to the evolving theory on public service design, especially in positioning service design as core to the value creation process (Trischler and Westman Trischler, 2021) thus also contributing to the emerging Public Service Logic (PSL).

The theory of design

The genesis of design and its application to public administration and management can be traced back to the 1970s, with scholarly interest in design as 'a way of thinking' or how things ought to be (Simon, 1969). With its distinctive principles and methods, design has been of interest as a potential replacement to expert-driven design (Bason, 2017). While traditional

approaches stress instrumental rationality, with an emphasis on expert knowledge and the development of solutions to obtain pre-defined goals (which are subsequently evaluated) (Sanderson, 2002) design methodologies emphasise creativity, curiosity and empathy through human-centredness, problem-solving, testing and iteration (McGann et al, 2018).

Under the human-centred narrative, the objective of design is re-framed. It is less concerned with the production of pre-defined functional services which seek to satisfy customer preference or the achievement of measurable performance targets. Rather, it emphasises the design of the service setting (the 'servicescape') to facilitate a positive experience for those interacting with it (Patrício, et al, 2008). Thus, the human-centred narrative supports an outcomes-focused approach, going beyond the immediate needs of service users to consider the longer-term impact on their lives and societal transformation (Kimbell, 2011; van Buuren et al, 2020). Design achieves this by investigating and understanding stakeholders' interactions, experiences and values through a methodology underpinned by the principles of openness, participation and inclusivity (Schwoerer et al, 2022). It seeks to innovate how policies and services are designed, implemented and delivered to contend with complex social goals (Trischler and Scott, 2016; Hermus, et al, 2020).

Design methodologies embed human-centredness during problem identification, understanding and solution development during iterative processes of ideation, development, testing and prototyping (Wetter-Edman et al, 2014). The transformative impact of service design is, nevertheless, influenced by the extent to which its principles are embedded and applied. Indeed, while design emphasises users' perspective, it can be practised in different ways (Hermus et al 2020). An informational approach seeks to uncover service users' needs, but is associated with scientific research and therefore relies on the principles of reliability, validity and rigour to investigate and analyse what has gone before and to develop solutions (Howlett et al, 2015). By contrast, an inspirational approach is rooted within experimentation, with a focus on ambiguity and delving into the unknown and is characterised by the generation of future-focused solutions (Sanders, 2005; Hermus et al 2020). Policy or living labs are a good example of this (van Buuren et al, 2020).

Its emphasis on participatory and inclusivity is a central element of design's appeal (Schwoerer, et al, 2022) especially in the context of *public* services where collectiveness is fundamental to participatory processes and outcomes. Although stakeholder participation is a core to design, participation is not uniform. User-centred methods, including consultation and interviews, place users on the periphery. Their past experience is captured and reflected in the process to enable the design team to shape new or re-design existing services (Teixeira et al, 2012). By contrast, co-design actively involves citizens/service users and draws on their past experience to generate fresh ideas and support improvement and innovation (Donetto et al 2015; Schwoerer et al, 2022). They are invited to actively contribute as an essential resource throughout the design process, including idea generation and the development of solutions (Wetter-Edman et al, 2014). However, co-design suggests a reconfiguration of power dynamics and although the design literature has recognised different relationships between professionals and users (Yu and Sangiorgi, 2018) it has been criticised for failing to systematically engage with issues of power (Donetto et al, 2015). This is a particularly notable omission for the public sector, where longstanding power asymmetries can constrain the

participation of citizens, especially where co-design is initiated, managed and controlled by public service organisations (PSOs) (Farr, 2013).

Furthermore, Vink et al (2021) caution that despite promising an innovative, outcomes-focused approach in practice, new service ideas are typically left unimplemented or eroded by conventional working practices. They argue that this is a reflection of the reductionist approach of service design, which focuses on the component parts of the service while neglecting the institutional and multi-actor context characterising the service ecosystem. Indeed, 'layering' of new design elements onto existing designs and embedded institutions may limit the transformative potential of design (Howlett, 2014). Furthermore, although service design should foster creativity (Dietrich et al, 2017) there has been little discussion of whether PSOs can, in actuality, embrace quick and iterative problem-solving. This is a central consideration given the public sector is typically characterised as being averse to risk (Alves, 2013).

The importance of experience and context

Service research offers valuable insights for public administration and management and has already supported conceptual development within the evolving PSL (e.g. Hodgkinson et al, 2017; Hardyman, et al, 2019). Early service research differentiated services from tangible products, highlighting the involvement of service users in the production process due to services' unique attributes (Zeithaml et al, 1985). Services are characterised as: intangible and subjectively experienced (Grönroos, 2016); inseparable due to the processes of consumption and production being integrated (Johnston et al, 2020); perishable as they cannot be stored for later use (Nankervis, 2005); and heterogenous because they are modified by the user or context. For PSL, understanding public services as services was an important starting point, supported with a shift towards a service logic (Osborne and Strokosch). In the service research there has, however, been an important shift away from understanding services as outputs toward the idea of 'service', focusing on the experiential and contextual dimensions of value co-creation (e.g. Vargo and Lusch, 2008; Grönroos, 2019) which has influenced PSL's development (e.g. Hardyman, et al, 2019; Strokosch and Osborne, 2020).

Through a service lens, value is not exchanged from public service provider to the end user, but is perceived and determined during use and experience (Vargo and Lusch, 2008). According to Jaakkola et al (2015, p. 194) understanding value co-creation in this way has relevance for how we understand design because it "draws attention away from the object of consumption (i.e. a good or service) towards the experiencing actors whose creation of value and of experience intertwine." Those actors bring with them different skills, social backgrounds, past experiences and values which feed into and shape the service interaction, and influence value co-creation. Thus, the role of the designer is to engineer elements of the service, such as its physical environment, the availability of staff and the delivery process to facilitate value co-creation. The user will then experience the service differently depending not only on design, but on their experience and social context. Thus, while design tools such as mapping and ethnographic models offer a useful means of uncovering and understanding subjective experiences (Trischler and Scott, 2016) the impact of the design is essentially unknown; it depends on the users' experience during and after delivery.

From a service perspective, value is co-created through the integration of various resources and complex interactions across the service ecosystem, with the context at different levels shaping the process (Vargo and Lusch, 2016). Value is socially constructed, perceived subjectively by each actor within their own social circumstances (Helkkua, et al, 2012) including the experience they share with others (e.g. family, friends, other service users) (Rihova et al, 2013). Furthermore, the *values* and rules of the social system and the layers beneath influence co-creation processes and value outcomes (Vargo and Lusch, 2016).

The importance of context has already been acknowledged in the design literature, with calls for a systems perspective (Trischler and Scott, 2016). According to Schwoerer et al (2022), design is influenced by the context within which it takes place, including the values of those involved in the design process (see also Lowe et al, 2021) which impact both the process design process and the design output (Howlett, 2014; Howlett et al, 2015). This links also with the broad Public Value literature, which suggests public *values* are embedded into public services and associated production processes to create public value outcomes (Moore, 1995; Bryson et al, 2017). The challenge though, is the pre-eminence of managerial values (e.g. efficiency) which bind public administrators to established norms and practices (Nabatchi et al, 2011) and also the capacity constraints felt by government which limit the extent to which the participatory methods of design can be embedded (Blomkamp, 2021). Howlett (2020, p. 47) reflects that selected design methods should, therefore, have ‘goodness of fit’ with the governance context to assist successful implementation.

Learning from the service research: design of services and design for service

Drawing on the service research, Kimbell (2011) conceptualises two types of service design according to whether the focus is on output (services) or experience (service): *design of services* and *design for service*. While both embrace the design’s core elements and are underpinned by a service logic, the what of design has conceptual subtleties. The nuances between the two conceptualisations are reflected in the discussion below and summarised in table 1.

	Design of services	Designing for service
Conceptual roots	Early service research, where <i>services</i> are defined as market offerings with specific characteristics: intangibility, inseparability, heterogeneity, perishability (Nankervis, 2005;).	Service(-dominant) logic, where <i>service</i> is understood as the integration of resources to support value co-creation (i.e. subjectively perceived and determined (Vargo and Lusch, 2008).
Design perspective	<i>Services</i> (as an output) are designed and delivered by understanding user need and experience, with value co-creation facilitated through the (re)designed service output.	<i>Service</i> designed by understanding need and experience but value co-creation is dependent on user experience and the surrounding context.
Focus	Solutions-focused by understanding user needs and experience.	Outcome-focused by emphasising service experience and context throughout the value co-creation process (Wetter-Edman et al, 2014).
Aim of design	Transform tangible and experiential elements of services as outputs, including the physical servicescape to	Transform tangible and experiential elements of the service and the physical and social context of the servicescape to

	support effective delivery and immediate need (Bate and Robert 2006; Patricio, et al, 2008).	support future value co-creation (Akaka and Vargo, 2015).
Approach	Reductionist approach – services are comprised of multiple component parts and service design requires that decisions be taken about each dimension (Glushko and Tabas, 2009).	Constructivist approach – service is socially constructed by interactions between multiple actors and various contextual factors (Kimbell, 2011; Blomberg and Darrah, 2015).
Locus of design	Service development phase.	Throughout service production, including development, use and contextualisation. The frontline service provider and service user have a demonstrable impact on service.

Table 1: ‘Design of services’ and ‘designing for service’

Kimbell (2011) argues that design can be implemented as a solutions-focused approach through the *design of services* as outputs. The reductionist approach associated with the *design of services* seeks to holistically capture the user’s complete experience or pathway of the service (Glushko and Tabas, 2009). Indeed, services are understood as having multiple components, including demand-side processes with which the user interacts and backend processes visible to employees. Employing an interpretative and exploratory methodology, the aim is to understand and consciously design the entire pathway for *each actor* interacting with the service (Sangiorgi, 2015). Each touchpoint or interface is designed to improve it from the user’s perspective. Thus, the aim of design and the design solutions are not predetermined or planned, but emerge through a process of creative problem-solving which centres on the user and their experience (McGann et al, 2018).

Design is implemented to support its iterative, participatory and action-orientated methodology, with co-design advanced as providing opportunity to embed participatory values into the process (Einfield and Blomkamp, 2021). The generation of creative ideas and problem solving is core, where collaborators are encouraged to implement “divergent thinking” and explore various options for problems, rather than seek a quick solution which offers cost savings or efficiency (Bason and Austin, 2019, p. 86). The process of divergence and convergence is enabled by collaborating stakeholders, but also through quick iterative cycles of testing and re-design (Bason and Austin, 2019). Service experience is the focus throughout the process, aiming to capture and evaluate current experience, and transform, test and improve it (Wetter-Edman et al, 2014).

Design of services is aligned with the inspirational approach (Hermus et al 2020) and the concentration on users rather than internal business processes represents a notable shift in approach for public service design. Furthermore, the participatory and creative elements of the design methodology offer insight into services as experiential outputs in line with early service research. Importantly though, *design of services* assumes that by involving service users and by understanding their needs and experiences during development, the (re)designed service will create value (Donetto et al, 2015; Schwoerer et al, 2020). While it encourages public services to be understood as services, the process of value co-creation is not fully considered. Rather, the design process itself is positioned as the catalyst and engine

for wider social transformation, suggesting that outcomes are produced by design and its underpinning values and methods.

Design for service reflects the conceptual distinction made in the service research between *services* as market offerings and *service* as the integration of resources to support value co-creation (Vargo and Lusch, 2008). It emphasises that value is co-created during service use, experience and contextualisation. Focusing on *service experience* both as the object and outcome of design, value is not created during or by the design, but future value may be co-created during use and contextualisation (Akaka and Vargo, 2015). Importantly, the design methodology is used as a means of configuring service, but not an end in itself. This emphasises the experiential nature of value co-creation and that design does not guarantee the same outcome for each user. The outcome will be shaped by the actors involved and also the wider environment and institutions (Wetter-Edman et al, 2014; Akaka and Vargo, 2015).

Like design of services, *designing for service* is understood as an iterative and messy process, but extends beyond development. Because experience is not limited to service encounters, but is socially constructed within the user's own life (Helkkula, et al, 2012) design must endeavour to understand not just the component parts of the service, but also more abstract elements which influence experience, including institutions, networks and the social context (Wetter-Edman et al, 2014; Jaakkola et al, 2015). As such, it takes a more far-reaching look into the environmental, values and contextual factors influencing value co-creation. While participation is again a fundamental element of the design process, the effectiveness and impact of design is also supported (or constrained) by a collaborative process of resource integration across the service ecosystem (Jaakkola et al, 2015). This includes the institutional and multi-actor context which shapes both the design process and the outcome of resources integration (Vink et al, 2021).

Two case studies from the UK are presented below to illustrate the enactment of service design in practice and to discuss the presence of either design perspective.

Service design in practice

Case descriptions The design of social security services in Scotland was the focus of Case A. Social security was devolved to the Scottish Government (SG) in 2016 and the Social Security (Scotland) Act 2018 established the framework for the new system of social welfare in Scotland. It transferred responsibility for the administration of certain social security entitlements from the Department of Work and Pensions (DWP) to 'Social Security Scotland'. However, the DWP retained responsibility for some UK-wide benefits such as Universal Credit, which is available to those in low incomes or out of employment. At the time of data collection, the SG was in the process of designing new services, particularly in the area of disability welfare, but the majority of these services had not been implemented. The focus of the research was therefore on design processes. Multi-disciplinary teams, including product owners, service designers, user researchers, business analysts and content analysts were responsible for design.

Case B focused on the re-design of services of a Borough Council located in the east of England. A for-profit consultancy organization had been contracted to undertake the service design work, a core element of which was digitalization. The process of service re-design was

conducted collaboratively by Consultancy and Council staff. The programme extended to all Council services, but for this case study three areas were investigated (housing, planning and waste) because these had been subject to the service design process at the time of data collection. A professional service designer was part of the Consultancy team; their role was to understand the ‘as is’ from a service user and staff perspective, in order to identify the pain points of the current services.

Methods This empirical research was conducted as part of a broader study of the reform of public services across Europe. Two cross-sectional, qualitative case studies were conducted. The aim was not to draw comparison across the cases, but rather to explore the phenomenon of service design to generate valuable knowledge and understanding of its dimensions and constraints (Stake, 2013). The case study approach offers capacity for flexibility and explanation, but is limited in terms of its sample, representativeness and generalisability (Yin, 2009). A mixed methods approach was therefore adopted to support methodological rigour through data triangulation, using different methods to crosscheck findings across the sources (Downward and Mearman, 2007).

Across the two cases, 28 semi-structured interviews were conducted with various respondents selected through a snowballing sampling strategy and the range of participants are depicted in table 2. Respondents were selected on the basis of their involvement in the service design process and/or their involvement in service delivery, where they had been affected by service re-design. 15 respondents in Case A and 13 in Case B participated in interviews. Five documents were also analysed across the two cases: in Case A, the Scottish Approach to Service Design and Digital First Service Standard; and in Case B a blueprint for housing services, an ‘as is’ journey map for temporary accommodation and a ‘to be’ journey map for temporary accommodation. In addition, two direct observations were undertaken in Case B: one of a user journey mapping session for clinical waste services; and the interactions of frontlines service staff with Council residents in the reception area. Although effort was made to conduct observations in Case A, this was not possible due to the sensitive political nature of the case.

	<i>Service Designers</i>	<i>User-centred professionals</i>	<i>Senior Management</i>	<i>Middle Management</i>	<i>Frontline service staff</i>	<i>Observations</i>	<i>Document analysis</i>
<i>Case A</i>	3	6	4	2			3
<i>Case B</i>	1	4		4	4	2	2

Table 2: Data collection

It was not possible to access citizens/customers in either case, due to the confidentiality requirements of the two agencies involved. This represents an important limitation of the empirical research, particularly in exploring the perceptions of the value that service users might gain through their involvement in the service design process. However, the spread of informants accessed ensured different perspectives were captured.

Analysis An inductive approach to analysis was adopted. The research questions guided the analysis, but a relatively unstructured approach was taken to enable data to be processed conceptually and to support the construction of emergent themes (Corbin and Strauss, 2008).

Analysis began with a review of the data to identify patterns in the data. Following an iterative process, tentative themes emerged and were developed through a process of continuous reflection on the theory, allowing the themes to be modified, expanded or discarded (Bryman and Bell, 2015). Table 3 details the final themes alongside the categories identified and examples from each case. These are expanded upon and discussed in the following section.

	Data	Category	Theme
Design of services or designing for service? The application of design methodology in public service settings	Service design focuses on the needs of social security service users and improving their experience, to enable access to the benefits they are entitled to. (Case A)	Human-centred perspective	
	Shift towards understanding the service from a customer perspective, but concerns for internal efficiency were the focus (Case B)		
	Design of online content, letters and application forms that will be used by clients by content designers. (Case A)	Tangible dimensions of service	
			DESIGN OF WHAT
	Re-design of the physical layout and aesthetics of the reception, including increased provision of self-service facilities and the revision of forms and website (Case B)		
	Aim to develop personalised service experience which meets the needs of individual clients and provides a positive experience (Case A)	Experiential dimensions of service	
	Improvement of internal systems (including digital interface) to make navigation easier for staff and customers (Case B)		
	Multi-disciplinary teams responsible for design of discrete service areas (Case A)	Internal collaboration	
	Selection of staff invited to journey mapping sessions, but final decisions made a senior management level (Case B)		
	Learning to work more collaboratively and upskilling of other professionals in service design methodology and tools (Case A)	Organisational learning	
	Changes in business processes to work in an Agile way and to work more collaboratively using a problem-solving approach (Case B)		
	Service users and external stakeholders involved in early stages of design and later testing through a participatory approach (Case A)	User perspective	
	Deliver services to meet needs of Council residents, but also to manage their expectations and limit their contact with the staff (Case B)		PRACTICE OF SERVICE DESIGN
	Emphasis on meeting the needs and solving problems by creating services and supporting systems to work effectively for those using them. (Case A)	Internal problem solving	
	Focus on pain points for residents and staff during journey mapping (Case B)		
	Prioritised the creation of a seamless user experience, where the emotive context of service provision is also considered (Case A)	Holistic service journey	
	Mapping of end-to-end customer journey, including touch points and pain points for frontend and back office to ensure efficiency (Case B)		
	Process of quick, iterative testing and decision making was constrained by process of seeking approval from senior manager (Case A)	Institutional context, procedures and rules	
	Service design process managed and directed by senior management, who controlled the impact of the process (Case B)		

Aggressive timescales for design process; lack of service design professionals and capacity for continuous improvement of the service (Case A)	Time and resources	CONSTRAINTS ON SERVICE DESIGN
Involvement in design process was time consuming for council staff and resources were limited which meant service design approach was conducted pragmatically; capacity of continuous improvement (Case B)		
Capacity for service design methods to be used to include vulnerable service users (Case A)	Inclusivity	
Challenge of using personas which fit a large population group and service design process involved mainly middle management (Case B)		
Challenge of dividing complex services into small chunks without losing sight of how it all fits together, combined with the legacy of the UK system (Case A)	Scale and complexity of the service system	
Re-designing elements of service with unintended consequences for key actors (Case B)		

Table 3: Thematic analysis

Design of what. In both cases, *human-centredness* was evidenced (Wetter-Edman et al, 2014). Design was implemented to establish and understand the needs and experience of service users and, based on this understanding, solutions were devised to improve the service (Patrício, et al, 2008). For all respondents, this represented an important departure from an internally-driven process practised in the past: *“this was a different approach... let’s look at it from the outside in as a customer approaching your service... what do they see, what do they hear, what do they experience...”* (Case B, Middle Manager).

There was little evidence that service design is embedded as an outcomes-focused approach or that design reflected a socially constructed idea of service (Kimbell, 2016; van Buuren et al, 2020). Rather, new (or revised) service outputs were designed in each case. The emphasis was on improving the tangible and intangible elements of the services to meet needs and improve experience (Vink et al, 2021). In Case B, re-design focused on altering the tangible components of the service. The reception area was, for example, re-designed to triage queries for various services (e.g. housing, Council tax). However, the emphasis was on the aesthetics of the physical space, rather social dimensions of service and its potential influence on value creation (Akaka and Vargo, 2015). Although respondents said that such re-design would have a beneficial impact on the service users’ experience, the interview and observation data suggested that it was used to change staff experience, by removing direct contact between professionals and residents. Respondents in Case A discussed design as a process for altering the tangible service outputs, such as applications, but also of reflecting the values underpinning the SG’s human rights approach for the new social security system. According to one senior manager, personalising social security as a uniquely interpreted service, rather than offering services where *“even if [the questions] don’t apply to them, they have to ask them all. It’s very cold and it’s very intrusive and very process...”*

Practice of service design. The use of multi-disciplinary design teams highlighted intra-organisational collaboration. Staff involvement was deemed indicative of them buying into

change but also supported the design process itself. Indeed, staff were viewed as having the necessary capacity and knowledge of the service, especially of its pain points. Interestingly though, service designers did not view the staff involved as a proxy for service users' experience because they could not access latent needs and experience.

Various respondents also commented that design and especially the presence of uniquely skilled service designers supported organisational learning. Service designers were described as upskilling staff in service design methods, collaborative approaches and a human-centred mindset, potentially supporting cultural change (Yu and Sangiorgi, 2018). In Case A, for example, all staff respondents spoke of how their involvement in user research offered crucial insight into the emotive and personal context of service users, which made staff more invested in the process (Donetto et al, 2015): *"service designers... quite often helped us to think about how a particular thing is situated in a person's wider life. So it's not just applying for a benefit..."* (Middle Manager).

Although service designers spoke of the importance of involving frontline service staff in the design process to mitigate the potential of *"throwing... [design] solutions over the wall"* (Case A, Service Designer) this was not the practice in either case. In Case A, frontline staff had not yet been employed. In Case B, respondents said that involvement had been primarily with middle management, which some thought had led to inconsistencies in the redesigned service. Customer service advisors, for example, noted that teething problems with the redesigned service could have been mitigated had they had an opportunity to contribute (discussed further under challenges below). In both cases through, the practice of service design was expert-driven, by professional service designers and senior managers who specified the vision, aims and parameters of the process.

User-centredness, primarily during the early information-finding phases of the design process, was the approach in both cases. However, its application played out differently. Limited research with residents and 'light-touch' testing was conducted, with their involvement appended onto the design process, or in Case B, not included at all. Consultancy respondents linked this to a lack of 'appetite' among the Council's senior management to engage with residents. The Consultancy had instead purchased data to develop personas of fictional residents to guide journey mapping sessions with Council staff. This is a valid service design practice, but one which keeps service users at arm's length. By contrast, Case A demonstrated the involvement of current social security clients, particularly during information-finding and testing phases. Interestingly though, neither case evidenced service user involvement during the define and develop phases of service design, which are arguably the locus of problem solving and creativity (Jeong et al, 2016; Bason and Austin, 2019). Respondents typically framed the capacity for problem solving as the pursuit of internal teams, supported by professional service designers. Evidence of creative thinking and solution development was among professional staff, generally at management levels, suggesting that although the design approach has been updated, the emphasis on the internal capacity of organisations to deliver improvement/innovation remains.

The holistic lens afforded by service design was uncovered in two respects. First, there was an emphasis on the end-to-end service user journey (Sangiorgi, 2015) capturing each

interaction and any potential pain points of the service. However, holism was limited to a configuration of the service components, rather than an attempt to support value co-creation (Jaakkola et al, 2015). Second, although the meeting users' needs and supporting satisfaction was the aim, the development of effective business processes was also essential for most respondents, reflecting the importance of backend processes and in achieving congruence between the internal and external dimensions of the service (Glushko and Tabas, 2009). Respondents from both cases discussed the importance of designing effective backend processes and the resulting implications for staff (i.e. the potential need to perform manual workarounds). However, the focus on back-end processes was perceived to compromise the design of the service experience and vice versa.

Constraints on service design. Five constraints were identified across both case studies. First, the institutional context, procedures and rules, including the strategic orientation constrained opportunities for creativity through quick and iterative testing and re-design (Jeong et al, 2016). This emphasises the importance of governance and institutional backdrop in supporting the successful implementation of design (Howlett, 2020). As an appended process, service design was controlled by senior management, who regulated its focus, depth and impact. Although, in Case A respondents referred to the human rights values underpinning the development of new social security services (the efficiency agenda was the focus of Case B) the physical and mental space for creativity associated with design (McGann et al, 2018; van Buuren, et al, 2020) was not present in either case.

Hierarchical decision-making was described as inhibiting creativity, especially the capacity to quickly iterate and re-design services. The ambiguity of re-design and testing was associated with the risk of failure rather than innovation (Alves, 2013). Creative idea generation was described as especially challenging where staff had to "to step into the unknown" or enter "obscurity" which was perceived too risky. Respondents also said that scope for divergent thinking was limited in the public service context because "*government find really scary because... there's no KPIs, there's no one accountable, there's no measurability...*" (Case A, Service Designer). In Case B, the barriers to creativity were even more prevalent, with senior management controlling the parameters of the design process to reflect goals of efficiency. The emphasis was on the transformation of internal business processes and front-facing services to support internal efficacy. In practice then, the potential to shift towards an outcome-focused approach (Kimbell, 2016; Schwoerer et al, 2022) was tempered by the preoccupation with managerial values. Respondents emphasised streamlining front-end service processes to enable Council residents to self-serve and by consequence, reduce staff time spent on direct interactions: "*I think the ultimate aim is to make the... the customers' contact with the Council quite straightforward, easy and rewarding... And to ensure officer time is much more efficiently used.*" (Case B, Middle Manager).

Second, time and resource constraints were also identified in both cases (Blomkamp, 2021). In Case B, for example, participation in design was described as time intensive for Council staff. Consultants reflected on the need to take a pragmatic and proportionate approach rather than one based on inclusivity and openness: "*So you could keep it really high level and it would be quite quick and you can just scoop it together but it'll have limited insights and limited benefits or you can kind of dig quite deeply and get really involved. And there's obviously a sweet spot in the middle...*" (Consultant).

Third, while service design enabled greater intra-organisational collaboration, it did not result in inclusive involvement, which is fundamental to co-design (Schwoerer, et al, 2022). This was particularly notable in Case B where employees, who mainly occupied middle management positions contributed to the design process. Here, the re-design of the reception area was described as resulting in various benefits, including reduced waiting times, an option for customer self-service (which was seen to increase efficiency by reducing direct staff-customer contact) and aesthetic improvement. However, the analysis also revealed that the alterations limited resident advice/support from trained employees and negatively impacted service user experience. Furthermore, re-design resulted in new pain points for frontline reception staff, changing their role from one of sign-posting residents to the relevant department, to information provision, support and advice. The observation highlighted that untrained staff were dealing with irate residents, with emotive and complex issues such as homelessness. Respondents said this negatively impacted their job satisfaction: *“It’s added [to my job]. And I don’t feel as though I’ve had enough training in order to deal with that.”* (Frontline). The prevalence of closed decision-making structures among the higher echelons of management and enduring power asymmetries between public managers and public service users was evident from the analysis (Farr, 2013). Although a user perspective was forwarded in both cases, it remained an intra-organisational pursuit, with limited scope for the redistribution of power downwards to frontline service staff or outwards to end users.

Fourth, the holism endorsed by service design was tempered in both cases due to the scale and complexity of public services. The intricacy of public services meant that maintaining a strategic overview of the entire service (front-end and back-end) and connected services from the end users’ perspective was challenging. There was an emphasis *either* on the experience of end service users (Case A), or the back-stage experience of staff with internal business processes (Case B), rather than considering both as core interrelated and equally important parts of the service (Shostack, 1982). Furthermore, in Case A due to the scale of the programme of work, it was necessary to divide up elements of work to enable manageability, but respondents spoke of the challenge of reassembling the jigsaw: *“I think one of the main challenges has definitely been breaking down what is a really big task into small chunks without losing sight of how it all hangs together”* (Middle Manager). To add to complications, the legacy of the current social security system designed and managed by DWP restricted scope for change through creativity because altering one service could negatively impact service users’ eligibility for another: *“So this ‘like-for-like’ term was being thrown about quite a bit and it was a real blocker for us in making any sort of innovation”* (Case A, Service Designer). In Case A, the impact of design was limited by existing designs and embedded institutions and norms (Howlett, 2014).

Finally, in both cases, developing solutions to meet needs disregarded the abstract nature of service experience and the multifarious factors impacting its construction (Vink et al, 2021). Indeed, the locus of design was confined to the development of services, rather than embedded as an iterative and ongoing process embedded in service production. A lack of capacity for continuous improvement after the implementation of (re)designed services was raised in both cases: *“They [the public sector] don’t get their role in iterating and the feedback loop and the fact that the systems will change and things will keep progressing forward...”* (Case B, Consultant). This was linked to the culture and entrenched work practices.

Discussion and contributions

The application of design in each case illustrates a step-change in how public service design has been performed traditionally, with a focus on needs and experience, collaboration, problem identification (and solving) and a holistic view of services. This represents an important reorientation away from the preoccupation with efficient internal processes. The analysis further shows that the application of the design methodology and its core characteristics, such as human-centredness and creativity, are arbitrated by various factors. These signify the complexity of the public service settings, including the presence of multiple stakeholders with different and sometimes conflicting aims (Bryson et al, 2017). Importantly though, it is also a reflection of *what* is being designed: services rather than service. The analysis suggests that the design methodology has been applied to understand user needs/experience and to improve services as outputs. The extension of design into value co-creation during use and contextualisation is far less evident in the empirical illustrations. Indeed, the focus in both cases is on satisfying immediate needs rather than the impact of the service on service users' lives and broader societal transformation with which design is often associated (van Buuren et al, 2020; Schwoerer et al 2022).

The analysis suggests that the application of design principles and methods have changed the process and product of design (Howlett et al, 2015; Schwoerer, et al, 2022) and have supported organisational learning (Yu and Sangiorgi, 2018). However, locating experience as an object of the design process, emphasising services as outputs and normatively positioning the methodology as an end in itself, downplays the socially constructed nature of value co-creation. While design has sought to meet immediate needs or facilitate user satisfaction by (re)designing outputs, neither case evidences an 'inspirational' approach's concern for outcomes. Furthermore, the reliance on the extent to which design's principles are embedded and applied in practice is stifled by the public service context, including dominant managerial values, power dynamics, and aversion to risk.

Drawing on the service research (Vargo and Lusch, 2016; Grönroos, 2019) we propose that the application of design in public service settings has further potential where it is accompanied by a deeper understanding of value co-creation. Understanding public services as the integration of various resources within a complex ecosystem, with the potential to co-create value underpins this. Service rather than services becomes the focus, along with the core constructs of experience and context (Jaakkola, et al 2015; Schwoerer, et al, 2022). Understanding the processes of value co-creation is an important starting point for the institutional change necessary to reap the normative benefits typically associated with design (Schwoerer, et al, 2022).

Design has the potential to capture the subjective and social aspects of service, including the originality different actors bring through their knowledge, skills and social background (Wetter-Edman et al, 2014). However, service, no matter how well it has been designed during development to reflect need and experience, will always be adjusted (and perhaps even re-designed) according to the complex variables influencing value co-creation. In a public service context, this is an especially important for services such as social care, housing or education, where the aim is not simply to deliver the same service to all but to offer empathy, equity and fairness. The context of the service, including the institutions, values and

norms of organisations, wider society and of service users also impact the design process and value accrual (Vargo and Lusch, 2016). By emphasising experience and context, *designing for service* acknowledges the complexity of the value co-creation process, which can be supported by the design principles beyond service development and into delivery, use and contextualisation.

Through the conceptual differentiation presented, we explain how the application of design is influenced by its focus (services or service) and illustrate that design can be employed for different ends (i.e. change processes and outputs or to support value co-creation). In doing so, we contribute to the theory on public service design by offering a nuanced consideration of design's practice and potential for public services. We also add empirically by adding insight into how design has been implemented in public service contexts (Hermus, et al, 2020). The discussion further contributes to PSL by highlighting important nuances between services and service, adding further insight to the value co-creation. We propose that service design feeds into the web of interactions that enable (or constrain) value co-creation, with potential to influence design processes and service outputs (Howlett et al, 2015) and also service delivery, use and contextualisation with a demonstrable impact on value accrual.

This research also offers three important implications for practice. First, service design should be applied pragmatically. A one-size-fits-all approach to design is not appropriate for public services. Consideration of the type of service and the level of user interaction is needed when deciding the design approach and methods. For example, the design of a road might require a *design of services* approach with light-touch user involvement to establish need, whereas for certain social care services, value accrual may be better supported by a *design for service* approach, finding innovative ways to embed design during delivery and use.

Second, service must be understood in its complexity rather than its discrete component parts (Teixeira, et al, 2012). This requires an integrated view of both the front-end components of the service and the back-end operational processes, but should also capture the complex social and institutional factors that shape the various dimensions of experience, including the values and various interactions across the ecosystem (Vink et al, 2021; Trischler and Westman Trischler, 2021). In a public service setting, such complexity is compounded because the service should be aligned with public policy values which have been negotiated within existing democratic structures (Moore, 1995).

Finally, service design requires flexibility to facilitate and embed creativity. This requires institutional change to reduce bureaucratic work practices and a commitment from senior managers to make available the time, resources and space for divergent thinking, testing and iteration (Schwoerer et al, 2022). For design to be fully embedded from a *design for service* perspective, there also needs to be space for these elements in day-to-day service delivery. This is especially challenging given the finite resources of the public sector and the need for cultural change and power dispersal.

This study has also raised questions for future research. As a relatively new discipline, investigation into how service design is taking place in different public service contexts and its impact is necessary, especially for public services with multiple service users who have conflicting needs/goals (e.g. criminal justice). Service design also presents the inclusion of a

new profession of service designers. The implications of this new arrival for intra-organisational relationships and power relations within PSOs will be an important area for future exploration. Finally, although the service design literature suggests that improving the service experience will support value creation, there is a dearth of evidence substantiating these links. Longitudinal studies are required to understand the impact of service design, especially for service users and society. Measuring value, beyond its economic dimensions, will be crucial to this work.

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