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Liminal Digital Transformation in Public Sector: The Case of UK Policing

For many public sector organisations, digital transformation is a strategic priority. However, there is limited understanding of how everyday practices shape such large-scale transformation. To address this, we adopt a strategy-as-practice approach to capture the ‘doings’ of strategy on the ground and the role this plays in large-scale transformation. We conducted an in-depth interpretive case study on UK policing and collected rich data from multiple sources. This is an important context as the police face increasing demands to deliver digital transformation while maintaining a high level of service to protect the public. Our findings reveal that public sector organisations like the police find themselves in a state of liminal digital transformation. We conceptualise this liminality as *incomplete*, *contested*, and *localised*, due to the specific conditions in the strategy practices: openness of strategy, ambiguity in rules and norms, and interdependencies across organisational boundaries. We theorise this relationship in a model of ‘liminal digital transformation’ and propose a set of propositions. By doing so, our research introduces a novel perspective on digital transformation in the public sector and how it is shaped by everyday strategising practices.

Keywords: Digital transformation, strategy practice, liminality, information systems, public sector.

INTRODUCTION

Digital transformation has gained significant interest in academia and practice due to its potential to support new strategic directions for organisations – including the redefinition of business models, organisational identities, and logics (Wessel et al., 2021; Baiyere et al., 2020; Li, 2020). To make the most of the opportunities that digital transformation presents, research has stressed the need for digital strategy, dynamic capabilities, leadership skills, and know-how (Hanelt et al., 2021; Pittaway and Montazemi, 2020; Warner and Wäger, 2019; Bharadwaj et al., 2013). Whilst these insights are valuable at the deliberate strategic level of organisations, less is understood about how strategic directions are embedded into local practices (Baptista et al., 2021; Karpovsky and Galliers, 2015). The focus on the ‘doings of strategy’ (Whittington, 1996) related to digital transformation can provide much needed knowledge about the everyday strategising practices that shape the emergence of large-scale transformation. This insight is critical for public sector organisations who are under pressure to transform their services to enhance their value and relationship with the public (Haug et al., 2024; Eom and Lee, 2022; Mergel et al., 2019), whilst being unable to radically change their operations due to their long-established missions.

Research has started to focus more closely on the organisational aspect of digital transformation and how it unfolds amongst people and practices before becoming embedded into organisational

life (Carroll et al., 2023; Ologeanu-Taddei et al., 2023; Kane, 2019; Eden et al., 2019). By focusing on local practices, we can capture the strategic intent they contain and how this is realised in organisations (Baptista et al., 2021). This is important because a digital transformation strategy is emergent rather than deliberate and develops over time (Chanias et al., 2019). For public sector organisations, there is a disconnect between policy around digital transformation, expected outcomes, and how these are achieved in practice (Irani et al., 2023). Hence, we need more research that illuminates strategy making in practice and demonstrates how organisational actors navigate strategic change. Research has highlighted the need for an integrative approach that highlights the wider impacts of local strategising practices (Morton et al., 2022). Consequently, there is a need to further explore the strategic outcomes from everyday practice and investigate how this shapes large-scale transformation. Hence, this study aims to address the following research question: *How do everyday digital strategising practices in the public sector shape large-scale digital transformation outcomes?*

To answer this question, we apply a strategy-as-practice theoretical approach (Peppard et al., 2014; Jarzabkowski and Spee, 2009; Whittington, 1996). This means adopting a practice lens on strategising based on the logic of ‘embeddedness’, which implies that strategising practices embed higher-level outcomes (Kouame and Langley, 2018). Such logic helps explore how everyday practices shape large-scale transformation at the organisational level and beyond. Within strategy-as-practice, a key principle is that strategising is something organisations *do*, rather than have (Peppard et al., 2014; Johnson et al., 2003). Hence, it allows us to capture the manifold practices that exist in organisations and how these have wider implications for digital transformation. To investigate this, we conducted an in-depth case study at a UK policing organisation which at the time was starting to respond to external pressures related to digital transformation. This is an important context as the police are under increasing demand to deliver digital transformation while maintaining a high level of service to protect the public.

Our research contributes to the IS strategy and digital transformation literature in two ways. Firstly, we develop a rich understanding of the local conditions in the everyday digital strategising practices, which contributed to the emergence of liminal digital transformation in a public sector context. Therefore, we extend existing knowledge by illuminating close accounts of the complex strategy practices that make up public sector organisations like policing. We focus on what police strategists do, their interactions with others, their relationship with digital technologies, and the rules and norms in which they operate. In doing so, we show how these everyday practices influence large-scale transformation outcomes.

Secondly, through a strategy-as-practice approach, we theorise how and why digital transformation is liminal. Our findings show that public sector organisations like the police are in a state of liminal digital transformation, caused by local conditions in the everyday strategising practices: the openness of strategy, the ambiguity in the rules and norms, and interdependencies across organisational boundaries. Together, this contributes to transformation outcomes that are *incomplete, contested, and localised*. This is conceptualised here as *liminal digital transformation*.

We therefore define liminal digital transformation as a continuous process shaped by local practices where an organisation is in between an established and emerging state of digital transformation. We illustrate liminal digital transformation in a theoretical model and propose several propositions.

The following sections are structured as follows: we start by providing a review of the literature on digital transformation before moving to the theoretical framing of the study through a strategy-as-practice approach. Next, we outline the methods, including the empirical setting, and we provide a rich description of the empirical findings whilst discussing their implications for theory and practice. Finally, we conclude with the limitations and opportunities for future research.

BACKGROUND

Digital Transformation in Strategy

Digital transformation is a strategic priority for organisations across industries and sectors, driven by digital technologies, disruptive digital players, and changing customer behaviours and expectations (Verhoef et al., 2021; Vial, 2019). These drivers put pressure on organisations to transform, not only through adopting innovative technologies but also via profound changes in organisational structure and logic. Research has stressed that digital transformation is relational, closely tied to historical and situated arrangements as part of a wider context (Lanamäki et al., 2020). For public sector organisations, digital transformation in society is creating pressure for ever greater digital services which provide better value for the public (Mergel et al., 2019). Navigating such pressure to transform involves significant challenges, not least in terms of managing historical and institutional conditions which may impact future strategic directions (Dias et al., 2023; Zimmer et al., 2023).

A growing body of literature has focused on the strategic process of digital transformation. In this process, senior management support is essential (Soto Setzke et al., 2023) as well as the need for new strategic orientations, growth strategies, and capabilities suitable for the digital era (Baiyere et al., 2024; Ellström et al., 2022; Volberda et al., 2021; Hess et al., 2016). However, research in both public and private contexts has found that the nature of a digital strategy is a dynamic process without a clear endpoint, constantly emerging due to changes in the internal and external context. Hence, an agile approach guided by ‘learning and doing’ is favourable, rather than an overly fixed strategy which cannot adapt (Verhoef et al., 2021; Chanias et al., 2019; Mergel, 2019). While awareness of digital transformation as a continuous process has grown, our knowledge of how such strategy is best realised in practice remains limited.

An approach which transcends procedural strategising to include the social practices in which digital transformation is enacted (Wessel et al., 2021; Baptista et al., 2021) can help illuminate the shifting dynamics of people and practices (Kane, 2019). Local practices embed strategic intent (Baptista et al., 2021) and can enable or hinder broader transformation. For example, misalignment

between top-management and local practices can cause destructive behaviours which hampers the transformation process (Poláková - Kersten et al. 2023). Similar patterns have been observed in the implementation of government policy, where the aims of large-scale transformation can be hindered in practice (Irani et al., 2023). To understand these challenges, more research is needed on how digital transformation is integrated and normalised into practice (Carroll et al., 2023), especially given that many transformation efforts fail (Oludapo et al., 2024).

Liminality in Digital Transformation

Based on previous research, digital transformation entails moving from the old to the new (Drechsler et al., 2020), where existing institutional arrangements take new digital forms (Hinings et al., 2018). A useful way of framing this process is through the concept of ‘liminality’ as it highlights the movement from a stable state to an emerging alternative future (Turner, 1967). Originally, liminality was used to describe ‘passage of rituals’ within anthropology, where actors transition from an established and recognised state to a new state of becoming.

In research on digital transformation and digital innovation, liminality has been characterised as a temporary, transient period where the past and future coexists (Henfridsson and Yoo, 2014), a continuous process of experimentation by working through tensions (Orlikowski and Scott, 2021), or a combination of the two where liminality is viewed as a continuous process and occurring in transient periods due to tensions in the material, temporal, and structural layers of established practices (Haskamp et al., 2022). Liminality has also been conceptualised as a space which can help managers at different levels use strategic framing to explore digital transformation (Putra et al., 2023).

Researchers have highlighted that focusing on tensions related to liminality can provide valuable insights into emerging organisational practices. When existing practices are destabilised (e.g., through crises like the COVID-19 pandemic), the current order of doing things is disrupted. In this situation, tensions occur, creating a liminal space where opportunities to innovate and reconfigure current practices emerge (Orlikowski and Scott, 2021). In these conditions, it is important to focus on resolving tensions as a driver for innovation (Gundersen et al., 2023). Whilst research recognises the impact of tensions and liminality on a digital transformation trajectory, more studies are needed to understand how organisations move from established to new practices. This requires an explicit focus on the everyday life of strategy actors and how their local practices shape large-scale transformation.

A Strategy-As-Practice Lens

In the previous discussion, we show that digital transformation is a key strategy for organisations. The focus of this research is to understand what is happening ‘on the ground’ (Baptista et al., 2021;

Peppard et al., 2014) (i.e., everyday practices) and how this shapes strategic outcomes. Previous studies such as Baptista et al. (2021) and Kouamé and Langley (2018) have demonstrated that by analysing ‘mundane’ everyday activities, we can better understand how strategy is influenced by embedded norms and values and becomes actualised in practice.

Practice approaches, such as strategy-as-practice, emerged over the last few decades and have become established approaches within Information Systems (IS). Developed in response to the dominance of research focusing on strategy from a macro perspective, practice approaches are concerned with the ‘doing of strategy’, that is, the day-to-day activities, contexts, and processes that relate to strategy outcomes (Peppard et al., 2014; Jarzabkowski and Spee, 2009; Jarzabkowski, 2005), and more recently, digital strategising (Morton et al., 2022). Strategy-as-practice focuses on understanding how strategising actors (practitioners) engage in activities (praxis) that enable and are enabled by organisational and wider social practices (Kouamé and Langley, 2018; Whittington, 2017; 1996; Vaara and Whittington, 2012; Johnson, et al., 2007). Therefore, strategy-as-practice allows exploration of the informal activities through which strategies emerge (Mintzberg and Waters, 1985), in contrast to planned deliberate strategies (Vaara and Whittington, 2012).

Research in IS has highlighted that digital transformation studies should not only focus on technology in isolation but also include the social practice of organisations (Carroll et al., 2023) and across organisational boundaries. This is important in the context of public sector and in policing, as digital strategy outcomes are not necessarily defined by economic performance (Vaara and Whittington, 2012) but through the service they deliver for public safety. This means value is generated in relation to citizen interaction and expectations, and co-created with a broad range of stakeholders in multi-actor relationships (Scupola and Mergel, 2022). Therefore, when it comes to digital transformation, this provides further complexity for strategic change and requires an in-depth understanding of how strategy practices lead to strategic outcomes (Morton et al., 2022; Karpovsky and Galliers, 2015). Strategy-as-practice can therefore aid more nuanced understandings of how digital transformation strategies emerge and develop (Högberg and Willermark, 2023; Arvidsson and Holmström, 2017) and how they are realised in practice.

METHODS

Over a thirteen-month period, we conducted an interpretative qualitative case study (Klein and Myers, 1999) to explore the everyday digital strategising practices within the public sector (policing) and how these shape large-scale digital transformation outcomes. An interpretive case study is suitable for exploring ongoing practices and change processes, particularly when an in-depth understanding of the phenomenon is required (Klein and Myers, 1999; Walsham, 1995).

Case Selection and Empirical Setting

Our case focused on a large police organisation in the UK serving around 2 million citizens and has over 8,000 employees. The organisation was selected because of the publicised expectation to

digitally transform as part of national UK directives such as the National Digital Strategy. In response to COVID-19, the organisation had also advanced their use of digital technology to ensure essential public services remained functional. The empirical setting enabled us to explore how digital strategising practices unfolded over time and how this shaped large-scale transformation. Furthermore, the chosen police force covered a diverse population and geographic area spanning five districts, ranging from densely metropolitan cities to smaller towns and rural areas. This provided variation in terms of the strategic practices police were engaged in and their dynamic digital needs.

Although digital technology adoption was not new to the organisation, like other policing organisations, large-scale transformation of process and practices was still emerging (Benbunan-Fich et al., 2020). The pandemic forced the organisation to rethink their strategies for how they deliver services, how they work together, and the role of technology in achieving their goals.

Data Collection

Primary data collection took place between December 2020 and January 2022, and initial access was facilitated by a senior manager. The senior manager was key to navigating the sensitive world of policing and for enabling data collection despite the significant demands and time pressures faced by the staff. COVID-19 heightened these demands, and we worked with participants to be as flexible as possible. Early in the research, we participated in meetings with corporate strategy leads and senior managers to understand the organisational context and technological changes taking place. We stayed in close contact with senior managers throughout to observe these changes unfolding. This enabled us to stay aware of policy changes and contextualise the findings.

Data was collected from several sources: (a) seven focus groups; (b) twenty semi-structured interviews; (c) eight hours of online meetings with practitioners such as the corporate strategy lead, and members of the senior leadership team; and (d) relevant documents such as nationwide strategy documents and analyst reports. In addition, feedback sessions took place to discuss and validate the findings. Table 1 provides an overview of the data collection.

Data source	Purpose	Description	Participants
Meetings	To understand the changing context, the digital transformation journey, and to build relationships with key strategists to support further data collection.	This consisted of formal and informal meetings with senior managers – 8 hours of meetings in total. Meetings took place between December 2020 and January 2022. All meetings were conducted online using Microsoft Teams and notes were taken by the research team.	Corporate strategy lead and members of the senior leadership team.
Focus Groups	To capture everyday strategising practices, interactions between people, the relationship with	7 focus groups were conducted with a range of actors between February and August 2021. The number of participants in each focus group ranged from 3 to 12, with a	Strategists (e.g., managers from organisational areas such as HR, facilities, finance, corporate development services), as

	digital technology and norms that were emerging in practice.	total of 49 individuals taking part across the seven focus groups. All focus groups were conducted online using Microsoft Teams and were audio recorded.	well as strategists from front line policing areas such as criminal justice, neighbourhood policing and response teams.
Semi-structured Interviews	To understand experiences of digital practices from the perspective of strategists and others involved in the process and how these contributed to large-scale outcomes.	20 interviews, between March and October 2021. Interviews lasted between 30 and 80 minutes, with the average interview lasting 60 minutes. All interviews were conducted online using Microsoft Teams and were audio recorded.	Strategists (e.g., managers from IT, corporate services, and senior leadership teams), managers from front line policing such as inspectors and sergeants and police officers.
Feedback Sessions	To validate findings with the organisation and wider organisational partners.	Feedback sessions took place on three occasions. In September 2021, findings were presented at an in-person event for discussion; in December 2021, an online meeting took place with the digital policing network team; and in January 2022, findings were presented and discussed with a wider team of change champions across multiple policing organisations in the UK.	Managers from the organisation, change champions from the wider policing network and partner organisations.
Archival data	To corroborate findings from the other data collection methods to provide wider context.	Policing policy document (UK specific and international), reports from UK's policing think tank, consultancy reports, and internal organisational documents. The archival material covered the period of 2015–2023.	

Table 1. Overview of data collection

After two initial meetings with corporate strategy leads, we collected data using focus groups to capture interactions and understand how digital transformation practices unfold and identify the norms through which they operate. To recruit participants, we sent out an open call for volunteers to senior and middle managers, as well as others involved in strategic practices. Our invitation included an information sheet with our contact details and was shared through the organisation's intranet. Once volunteers responded, we organised participants into focus groups with similar core functions.

Each focus group was moderated by two members of the research team (Stewart and Shamdasani, 2015). To limit multiple participants being taken away from their core duties, each focus group lasted just one hour and was conducted online using Microsoft Teams. A topic guide was developed based on the existing literature and tailored to ensure its relevance to the different function areas. All focus groups were audio recorded using the Microsoft Teams built-in features and fully transcribed. The first few focus groups allowed us to get a sense of the digital transformation practices police were engaging with and identify areas for further discussion.

Twenty semi-structured interviews were conducted with strategists (e.g., managers from IT, corporate services, and senior leadership teams) and other practitioners such as senior police officers and support staff in management roles. Initial participants were recruited in the same way as the focus groups, but we also utilised snowball sampling. We stopped recruiting participants once we reached saturation in the analysis process (Glaser and Strauss, 1967). Based on the existing literature, an interview schedule was developed. Interviews enabled us to understand the perspectives and experiences of different actors and to further unpack their everyday practices and their use of digital technologies. Interviews took place on Teams and lasted an average of sixty minutes.

Focus groups and interviews were complemented with archival data. The focus was on gaining a deep understanding of the wider digital transformation agenda that surrounded the police organisation and how it developed over time. Finally, feedback sessions were utilised on three separate occasions to present initial findings and generate discussion. This served to validate the findings and engage actors from outside the organisation, such as a national network of policing change champions and partner organisations. This enabled us to further explore digital transformation outcomes and views on the strategic direction from partner perspectives. Due to the nature of these meetings, audio recording was not permitted. Instead, notes were taken contemporaneously and refined immediately after.

Data Analysis

Focus group and interview data were fully transcribed and uploaded to the qualitative software programme NVivo, alongside notes from meetings and feedback sessions. As is common in interpretive studies, the data collection and analysis were conducted in parallel to enable an iterative approach between the empirical data and conceptualisation (Klein and Myers, 1999) where initial insights were derived from the data (e.g., during the first focus groups and interviews) and later tested through theorisation and emerging understanding (Lee and Hubona, 2009).

We first sought to understand what was driving strategic change in policing. Data from meetings with strategy leads and the initial focus groups and interviews identified two main drivers of change. These were the National Policing Digital Strategy 2020–2030 and COVID-19. We also used archival data to corroborate the identified drivers and the wider context of digital transformation in policing over time.

In doing so, we identified key areas where digital transformation practices were becoming more prominent for the remaining interviews and focus groups: (1) who the police work for (i.e., the public); (2) how police work together internally; and (3) who they work with (i.e., partner organisations). These areas interrelate to deliver the wider organisational mission of maintaining public safety. We coded the data using open coding to identify relevant codes and cluster them into categories, allowing new concepts to emerge (Gioia et al., 2013). Appendix A shows an example of quotes and first order codes.

To achieve reliability between coders, two interviews were independently coded and the results were compared (Glaser and Strauss, 1967). Through this process, we used strategy-as-practice as a lens to guide our analysis, working through iterative cycles between our data and conceptualisation. We identified how strategists embedded digital technology in practice, and how their work influenced larger scale outcomes. We discovered that digital transformation strategy was still emerging throughout the organisation. Based on previous literature, we conceptualised that large-scale digital transformation outcomes in policing were in an in-between or liminal state.

In the final step of analysis, we further theorised this liminality to explain what was contributing to it. Using liminality as our sensitising device (Klein and Myers, 1999), we returned to the data for the next iteration of coding and recoded themes. We validated the emerging theoretical constructs and systematically analysed causal interactions between them (Gioia et al., 2013). The data structure of the core concepts based on the analysis are depicted in Figure 1. We discovered three conditions in the everyday strategy practices restricting digital transformation: openness of strategy; ambiguity in rules and norms; and the interdependencies across public sector organisations. These insights prompted us to use abductive reasoning, iterating back and forth between the data and the conceptualisation to make a leap toward theorising liminal digital transformation (Van Maanen et al., 2007). Table 2 demonstrates the theorisation between the identified practices, concepts, and large-scale outcomes.

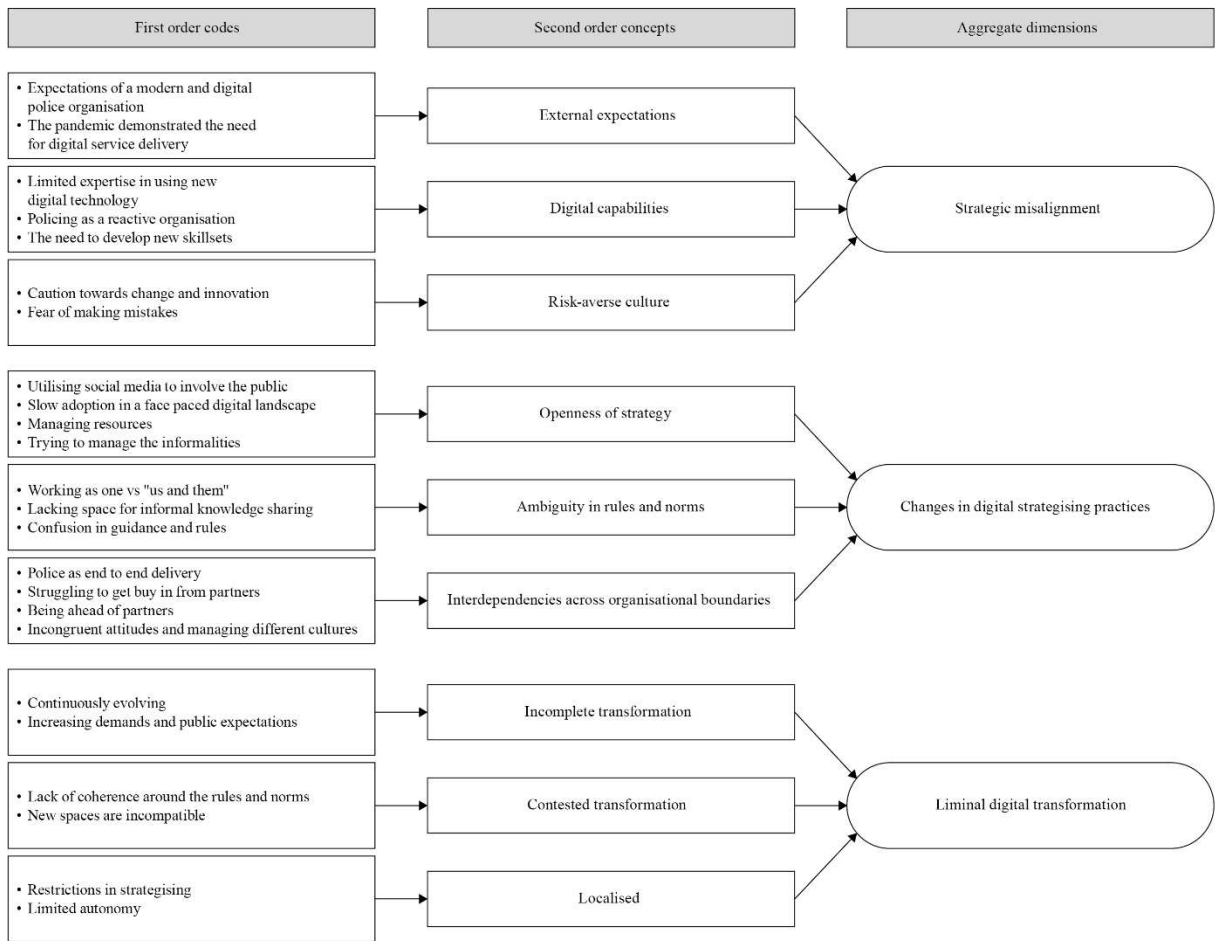


Figure 1 Data structure

Everyday digital strategising practices	Concept identification	Concept explanation	Transformation outcomes concept identification	Concept explanation
Strategising around the delivery of digital services for the public	Openness of strategy	Expansiveness of digital technology, participation and work	Incomplete	Constantly evolving technologies, participation and work that are difficult to keep up with
Strategising spaces as digital and physical across the police	Ambiguity in rules and norms	Destabilisation of established practices creates confusion	Contested	Lack of coherence around the rules and norms needed to underpin large-scale transformation
Strategic decision making around adoption of digital technology with partners	Interdependencies	Organisations are dependent on each other for strategic decision making	Localised	Pockets of digital transformation initiatives due to limited autonomy for system wide change

Table 2. Theorisation between practices, concepts, and large-scale transformation outcomes

FINDINGS

First, we explain the strategic context of policing and the strategic misalignment that occurred between external expectations for digital transformation, the lack of digital capabilities, and the risk-averse culture. Second, we focus on three digital strategising practices relevant for the police on their transformation journey, and the changes that emerged through the openness of strategy, the ambiguity in rules and norms, and the interdependencies across organisational boundaries. Third, we highlight how these conditions lead to transformation being *incomplete*, *contested*, and *localised*. Together, this is theorised as liminal digital transformation.

Strategic Misalignment

External Expectations

UK policing faces external pressure to digitally transform on many fronts. There are demands for: 1) greater efficiency; 2) adaptation to new criminal threats; and 3) responding to societal change and engaging in the digital spaces the public increasingly occupy. The National Policing Digital Strategy 2020–2030 (NPDS) aims to set the direction for how to modernise the police and improve efficiency through digital technologies. It highlights a series of key longer-term objectives which align with these three demands. This pressure is not unique to the UK. Interpol, a global organisation which facilitates international police cooperation, is one influential actor who has predicted:

[...] in the coming decades, law enforcement will face a world where the physical and the digital are increasingly enmeshed, crime is increasingly complex and transnational, and social expectations are evolving rapidly. (Interpol, 2022, p. 5)

The quote not only stresses the move to digital but also highlights the speed by which things are progressing and the blurring of long-established boundaries. The expectation for the police to keep pace with growing digital demand from society, and to meet the increasingly complex challenges of tackling crime, was explicit in the NPDS 2020–2030.

Policing does not operate in a vacuum and cannot stand still in the increasingly digital world we work and live in. The challenges and opportunities that digital disruption present to policing are rapidly becoming defining issues for the service. We must move now and move quickly. (p. 2)

The need for pace was heightened further as COVID-19 placed great demand on both central government and individual forces to digitally transform. The pandemic presented a need to think how digital technologies could be utilised to ensure ‘business as usual’ and maintain public safety. It triggered a rapid acceleration of technological change to support remote working and digital public services to reduce face-to-face contact in areas where it was previously unthinkable. One strategist explained how *‘the COVID situation opened that Pandora’s box’* and stressed further how it *‘added speed and impetus’* (Int 5) to their existing strategy. Another interviewee expressed how COVID *‘forced us to move with the times in a way that, I think, otherwise we would have been very slow to react to’* (FG6). This shows the greater need and sudden impetus to transform policing. However, the operationalisation of this desire was hampered by limited capabilities.

Digital Capabilities

Despite the many drivers of organisational and technological change, the circumstances in which the police operate meant that they lacked the necessary digital capabilities to respond effectively. Austerity in the public sector had resulted in reduced budgets and resources. Forces were pressured to ‘do more with less’ as they were expected to continue to deliver on their core business, cover for other cut public services, and respond to digital shifts in society. This notion of *responding* to change is key to understanding the context in which pressure is realised in policing.

The role of the police has long been conceptualised as both broad and reactive, *‘something-that-ought-not-to-be-happening-and-about-which-someone-had-better-do-something-now!’* (Bittner, 1990, p. 249). This reactivity was raised in one of the focus groups, *‘policing is reacting, “right, I’ve solved that. Brilliant. Next one.”’* (FG5) and the mentality impacted strategic work which was shaped by a focus on shorter-term events where a never-ending conveyor belt of ‘new priorities’ distracted from the bigger picture. This was reflected in both focus groups and interviews.

In police, it's very 'can do' in many ways but quite short-termism, and often you've to be [...] 'you know, we're going to have to pause on this strategic thing, whatever it is we're working on because we've got to focus on that.' (FG7)

[...] it's like anything else in policing terms, you start spinning the plate, and it starts to wobble and spin it a bit more. But then actually another plate becomes far more important. And you have to just throw that one away. (Int 6)

It is this context in which the National Police Chief's Council (NPCC) Science and Technology Strategy (p.8) identifies that the police fail to anticipate how technology could solve future problems as the focus remains on yesterday's issues. This focus on the past is accompanied by a system that *'still relies on "old school" infrastructure and processes'* (Deloitte, 2015). A lack of digital capabilities was further reflected in the mismatch between the strategic, external pressures being applied to the force and the internal skillsets needed to deliver on those. For the strategists, this was a concern: *'We need to have better training, I think, better rollout of new IT systems as they're coming in. We do need the right people with the right skillsets to be able to deliver those'* (FG4). Whilst there was recognition of the need to deploy specialist skills to deliver change, the limitations in which the police operated meant that investments were largely seen through a lens of minimising risk rather than maximising opportunity.

Risk-Averse Culture

The risk-averse culture of policing is another way in which the identified strategic misalignment manifested. Policing was reported as *'inherently conservative'* (Int 2) with rigid procedural rules and a bureaucratic organisational structure that inhibited risk taking. As stated by one participant in a focus group, these characteristics contributed to an unwillingness to change:

Policing as a whole is a bit scared of change, we can be a bit, 'let's just think about the risk of that' and so we don't necessarily charge into things unless there's a need to. (FG1)

The risk-averse culture can be linked to the scrutiny that policing experiences. Within policing, there is a long-established fear of 'getting it wrong'; the consequences potentially being reputational damage for the organisation, as well as disciplinary action against individuals (Heaton and Tong, 2023). In the digital era, public scrutiny was further enhanced by technology such as social media and the use of it as a platform for sharing user-generated recordings and experiences of the police. Such reporting could be picked up and amplified by the traditional media, as a strategist working in the communications area confirmed when reflecting on the work of frontline officers:

Most police officers, you know, without massive amounts of training, are doing the right thing and saying the right thing so it's very rare that the wheel comes off, but I when it does, because it's the police, the media and the public are really quick to pick up on it. (Int 18)

The same interviewee described how they would tread very carefully to avoid making any mistakes due to the intensity of scrutiny that policing comes under:

Before we got hung out to dry about things, it's just going to be incredibly careful with things [...] because things change and sometimes something comes up, you know, it's going to be topical or problematic, and you don't want people to see us fall foul of it, really, do you? (Int18)

Not only does such an environment result in a desire to avoid risk, which impacted what was possible to achieve in terms of digital transformation, but it also limits the space available for reflection and learning.

Changes in Digital Strategising Practices

Strategic misalignment between external expectations, digital capabilities, and the risk-averse culture provided the foundation for changes to emerge in police digital strategising practices as they had to rethink how they do things. We found changes manifested in three ways: (1) *openness of strategy*, which involved strategising with the public through digital platforms; (2) *ambiguity in the rules and norms*, where organisational strategising took place across digital and physical spaces; and (3) *interdependencies across organisational boundaries* which involved strategising with partner organisations. We zoom in on these practices as they represent examples of the everyday strategising that takes place within the police and demonstrates the breadth of strategy work across various parts of the organisation.

Openness of Strategy

Openness of strategy was identified as a key concept when observing changes in strategising practices. In this context, the police started using digital technology such as social media to include the public in strategic decision making. The police exist to serve the public, and their relationship is fundamental to service delivery. Strategic dialogues with the public, listening to their issues, and taking their concerns onboard for both immediate priorities and future strategies is one way in which the police demonstrate their commitment to the relationship. Such engagement also allows for the police to gauge and manage expectations.

Police officers engaged in this type of strategy work were strategists in external-facing roles, such as communication and neighbourhood policing. Traditionally, interactions with the public, and other stakeholders, would take place face-to-face. However, this limited the scope of who could engage as they were bound to a specific time and place: *'face-to-face meetings pre-COVID were difficult at times and attendance wasn't that great' (FG1)*. Social media platforms were adopted to facilitate a more open process to strategising, providing accessible ways to engage with the wider public, and better capture their diverse needs. Strategists reported the benefits of involving the public more actively in their work: *'It's not just about engaging with communities now, it's*

actually about utilising them in terms of their language, their skills, their networks' (Int 15). One example that was provided was the public's help around combating dog theft:

The dog theft trend that's been going around the country. We weren't seeing in the statistics any real reason to look. However, we knew from social media that it was a massive thing for people in [location]. So, we did a lot of promotional work about how to keep your dog safe and we ran a campaign around dog theft. (Int 10)

Using social media, the police were able to work with the public and respond to their concerns despite official data failing to identify the need. In meeting public demand, they demonstrated they were listening and provided practical value through their campaign. However, whilst strategists saw potential in using social media on narrow issues, they faced challenges leveraging it on a larger scale.

The police felt the pressure to be at the technological forefront with social media, but, as with wider findings on strategic misalignment, strategists expressed 'being behind'. Continuously evolving social media and the variety of platforms, features, and audiences hampered effective engagement. This landscape was difficult for the police to make sense of, and they were far behind public expectations of their capabilities:

The demand is increasing, and we're becoming more reliant on it [social media], but public expectation is, well, most people imagine that the police are like Minority Report, where they're moving things around in a virtual arena, and obviously, we're not! (Int 16)

It was recognised that the adoption of social media for open strategy had been slow: '*It's taken policing a long time to move into social media as a legitimate way of communicating with the public' (Int 2). Such limited progress was seen as a missed opportunity but was partly explained by strategists struggling to secure the additional resources required. With the move to social media, strategy work expanded to include new digital platforms which needed to be staffed and monitored: 'We need to make sure we can respond and are able to respond in a timely manner. It's about making sure that we kind of maintain the standard that the public expect' (Int 16).*

Expanding to such platforms was challenging due to their openness. The breadth of social media resulted in a mix of user-generated content covering everything from the reporting of active incidents to people joking with or abusing the police. Strategists described the issue of maintaining this online space where they would have a plan for engagement but find people responding with information that would be more appropriate for established crime reporting lines. The consequences of not monitoring the platforms could be life threatening if a crime was reported and not acted on. Beyond these issues, resources needed to be allocated to strategic planning, to determine which audiences to target and on which platforms. Strategist indicated a need to tailor the use of social media for open strategy, especially for reaching younger generations:

We've traditionally used Facebook and Twitter, just in the past year we started moving into Instagram. Previously, we had a broad approach where we just put everything on every platform. Now we want to develop the right message for the right platform [...] My granddaughter tells me Facebook is only for older people so she wouldn't dream of touching it with a bargepole. (Int 18)

Furthermore, one strategist compared how the private sector provided the public with much more options for engagement online than the police:

In the commercial sector, customer segmentation and multi-channel services provide the public with the greatest possible choice of how they want to engage [...] we're effectively almost forcing the public into a sort of meat processing plant. Social media can enable us to offer more choice for the community on how they want to engage, not just how we want to engage. (Int 5)

This demonstrates an awareness of how social media *could* be used to provide more personalised experiences. However, the realisation of such approach felt far away for strategists, as the evolving social media landscape and their limited resources created a difficult environment.

Beyond issues of expertise and resource, social media differs from the tightly controlled spaces that the police have historically dominated. The openness of digital platforms can enhance the visibility of police work and invite more public comment on issues. Yet, one of the challenges with the open strategy approach was the lack of two-way communication as the police adapted to this space: *'That's still, in my view, quite a one-way street. We tend to promote information out rather than having a proper dialogue'* (Int 2). Strategists struggled to find the right tone and present themselves in a way they judged more suitable for engagement online:

Sometimes it's a bit stiff and police speak, and just don't connect with people [...] I quite like the idea of messages that don't even look like they come from the police. Like, people talking about whatever the issue is and having a proper discussion around it. I'd like to see us moving into a less formal approach, taking a bit more risk with things. (Int 18)

Given the risk-averse culture of policing, and the openness of social media, it was difficult for strategists to adopt an experimental approach when letting go of the formal police identity was perceived as a threat. In this context, the openness of social media and the relative informality of these spaces clashed with the longstanding expectations of police professionalism.

Ambiguity in Rules and Norms

A second key concept that developed through our analysis was ambiguity in the rules and norms. This manifested through the reconfiguration to hybrid working and the changes brought on through this process. The police organisation had implemented digital technologies to allow for some flexible working, aligned with the wider digital transformation agenda of the NPDS, but this was accelerated during the pandemic with implications for strategy work across the organisation.

Police organisations consist of frontline and back-office functions. The frontline refers to the day-to-day public facing operations that constitute crime fighting, order maintenance, and neighbourhood policing. They are supported by back-office roles such as corporate strategy and development, communications, facilities, HR, and IT. Back-office functions are performed away from the public, traditionally in buildings where frontline officers also operate from during shift work. These shared spaces facilitate face-to-face communication and allow for different areas to engage with each other. They were seen as an important mechanism for effective strategic decision making by acting as a conduit for knowledge between the frontline and back-office. Consequently, this section focuses on senior police officers and middle managers engaged in strategy work at the intersection of the frontline and back-office.

For back-office staff, the pandemic intensified a shift towards hybrid working with the rapid integration of new laptops, Office 365, and flexible working arrangements. Whilst hybrid working was not entirely new for staff, it previously required explicit permission and was viewed as a privilege to only a few in clearly defined roles. This policy loosened during the pandemic, but the change did not apply to most of the frontline who were still required to work in their public-facing roles. This meant that new rules and perceived privileges only applied to certain groups. The divide was discussed in one of the focus groups:

One of the battles that we grappled with, even ethically as a team, is that risk that the organisation could be divided into two with a huge number of people who were almost being sent home [...] There was a real risk that you've got our frontline, who of course, don't have that choice [...] there was a risk that officers look in their own offices and feel everybody's gone home. (FG7)

This perceived privilege of more flexible working arrangements was seen as having the potential to upset the balance and comradery of the wider organisation. This comradery is key to policing and the sense of being visibly part of a shared mission, through uniforms, symbols, and shared workspaces. This relates to the characteristics of police work where the different parts of the organisation need to work closely to understand and support the risk-filled operational frontline, as explained by one strategist:

We are team people. Our culture is to gather together. As an organisation, we are a very small number of people attempting to influence and control, with consent, over two million people [...] it is in our nature, for safety, to come together, to share ideas and to work through things [...] the job that we deal with, which can be dangerous, can mean that, you know, we do need to make quick time decisions, you might need to bounce something off of somebody. (Int 6)

With the wider adoption of hybrid working for the back-office, the established order for the strategists was unsettled and risked dividing the organisation into 'us and them' through disrupting the shared space. Consequently, an ambiguous space emerged for strategy work where that culture of seeking to 'gather together' to bounce ideas around and manage risk across teams was

imperilled. Whilst the frontline was largely able to continue with their business as usual, the back-office strategists felt the loss of the connections that previously allowed them to feel anchored to that work.

Shared physical spaces played an important role in strategy work as those from both the back-office and frontline could meet to share knowledge, often informally, during breaks and around meetings or briefings. Through such interactions, strategists gained access to strategic information across the organisation and maintained close relationships beyond team boundaries. However, transitioning to hybrid working for the back-office meant that these ‘natural’ spaces for informal strategising were reduced. Strategists found themselves in between the historically strong police practice of sharing knowledge in these spaces and the emerging digital space. Consequently, they were struggling to formalise new norms and behaviours online. There was no equivalent space for informal knowledge sharing which caused confusion, as reflected by one interviewee:

The strategic meetings that I've Skyped into, yesterday there was a three and a half hour one, at the end of it I think 'what the hell was all that about?' and I genuinely wonder if it's not me being bright or if it's not me understanding what they're all talking about, is everybody in the same boat as me? (Int 6)

Another issue was the strict format of the online meetings where there was no room for socialising or informal conversations: ‘*The meeting tends to stick just to the thing, and people don't have those conversations in the margins*’ (Int 2). The hierarchical world of policing meant that the loss of these informal conversations was felt, as they provided a way to work outside of the rigid structures and allow for different areas to strategise together.

Interdependencies Across Organisational Boundaries

Interdependency was found to be a central concept when observing changes in digital strategising, with many interviewees and focus groups highlighting how strategising takes place both within and beyond organisational boundaries. Police described their practices as ‘complex’ because they operate independently to other organisations while also being situated within a network of wider public service actors (e.g., criminal justice services (CJS), other emergency services, health services, local authorities, community groups) to provide an integrated approach to public safety. These actors were described by police as ‘partners’ who work towards common goals and maintain collaborative relationships.

In the context of our study, the police looked to establish new digital practices in response to the following: (1) external expectations highlighted in the strategic misalignment section; (2) long-term objectives to improve efficiency by providing integrated digital service delivery across organisational boundaries as outlined in the NPDS report; and (3) short-term conditions created by COVID-19. Taken together, this initiated engagement in strategic decision making around the adoption of new technologies. However, given the complexities of partnership working within a public safety context, police were restricted in what they could implement as part of larger scale

digital transformation. This was found to be caused by the interdependent relationship between police and partners which influenced digital strategising practices.

An example where this interdependency was particularly evident was in criminal justice. From a police perspective, the strategists were front-line police managers with responsibility for overseeing criminal justice within the organisation and across organisational boundaries (e.g., working in partnership with the Crown Prosecution Service (CPS) and liaising with the courts and victim/witness support services). As one strategist explained:

So within my portfolio sits all things CJS, so the case progression journey from point of charge through to outcome at court, I've also got responsibility for custody services. (Int 14)

Each organisation within the CJS has their own strategic priorities and objectives, while simultaneously working towards the same goal (e.g., ensuring public safety). Consequently, each organisation is dependent on the other and any changes have implications for the entire system. System misalignment may cause gaps in service delivery which can have serious legal implications and potentially damage criminal cases, leaving victims without justice.

An integrated approach to criminal justice has been long established. Police explained that until recently, the CJS relied on traditional ways of working due to the legal procedures that underpin it and the need to ensure legitimacy and accountability when building criminal cases. For example, investigative interviews with suspects would take place physically in police stations; meetings and communications between partners were either face-to-face or over the phone; and court appearances would be conducted in person with police and non-police practitioners (e.g., judges, lawyers, etc.).

Given the external pressures on the police, the pandemic provided an opportunity to drive change and legitimise police strategy efforts to digitally transform some of the current processes (e.g., utilising digital solutions such as digital warrants and facilitating remote court hearings via video conferencing technologies). Focus group participants discussed some of the benefits these changes would bring such as increased efficiency and productivity. For example, they would no longer be travelling to and from court to collect warrants and could instead spend more time working on cases which had the potential to improve public trust and confidence.

However, these attempts were often met with resistance from partners such as the judiciary. A strategist explained how the police were piloting new digital solutions which would enable officers to virtually attend court hearings, but they were struggling to get buy-in from partners:

So that technology is there for police officers, I think it would be a massive time saving, and they don't have to sit in court all day. We have tested some technology on our handheld devices, where we could actually link into the court. So, you could literally go and park up somewhere or just nip back to the police station, which would be brilliant. Again, it works. The courts are struggling to

get the judiciary on board with it [...] I'm not giving up on it. It's something I'm still badgering them about. (Int 8)

In one of the focus groups, it was evident that frustrations were starting to emerge as police viewed their approach to digital technology as being at the forefront of the CJS. For example, *'I think we do lead the way with partners and the speed that we can turn things around' (FG1)*, whereas they perceived their partners as more cautious in their approach to technology. Police described the CJS as 'archaic', suggesting partner attitudes towards adopting new digital practices were incongruent with their own. As one strategist explained:

The way the broader criminal justice system has responded, I would have expected to be better [...] policing is criminal justice end to end so getting justice for victims [...] we've got, in my view, an archaic criminal justice system that could be a lot more slick. I would have liked to have seen them becoming more progressive. (Int 1)

This incongruity could be attributed to the different priorities of each partner organisation and the perceived bureaucratic culture within: *'that might be a cultural challenge with some of the judiciary that the courts will need to address' (Int 14)*. This view was aligned with a Ministry of Justice report which recognised that users *'often have to try and manage their way through unintuitive, outdated systems'*, and the justice system should *'build flexibility into our systems so we can respond quickly and easily to change'* (Ministry of Justice, 2022).

Although the CJS constitutes long-established partnerships, when it comes to technological change, interdependency created incongruity in digital strategising practices and restricted wider progress.

Liminal Digital Transformation

Our analysis of secondary data, including reports, combined with interviews and focus groups, has uncovered that elements of the strategic context were misaligned. Strategic misalignment contributed to change in digital strategising practices in multiple ways. These changes were conceptualised as openness of strategy, ambiguity in the rules and norms, and interdependencies across organisational boundaries. Further analysis of meetings with strategy leaders confirmed that digital transformation was taking place in various parts of the organisation (e.g., the adoption of social media for crime reporting and community engagement, the move to digital working in the back-end support services, as well as digital solutions in the criminal justice systems). While these practices were a step towards digital transformation, it was found that large-scale change was not fully developing in policing. Instead, we found that digital transformation was in a liminal state where police strategists found themselves between long-established practices and the future digital transformation that was yet to emerge. In the section below, we explore how different strategising

practices lead to different transformation outcomes, contributing to liminal digital transformation. We conceptualise these outcomes as *incomplete*, *contested*, and *localised*.

Incomplete Transformation

Incomplete transformation is the first contributing concept to liminal digital transformation. Previously, we highlighted how open strategy was used in policing to engage with the public in new digital ways. However, it was also apparent that in introducing social media, a series of new challenges emerged, such as managing public expectations and navigating the uncertain digital landscape. In this case, we found that the transformation was continuously emerging.

As outlined in the openness of strategy section, we found that the constant emergence of evolving digital platforms made it difficult for police to keep up with the pace of change. ‘Opening up’ their communication channels to social media revealed the need to develop new skillsets to navigate this vast digital space where each platform also has its own characteristics (e.g., Facebook versus TikTok). However, this requires time and resources, which the police and the public sector more broadly lack. We also found that engaging in new digital strategising is often in addition to traditional face-to-face practices. Maintaining their traditional practices, in parallel with digital practices, created greater demands on the police, who felt they had to be simultaneously visible both on and offline. For example, one interviewee explained:

We’ve been able to engage with members of the public through social media, but again, you can see the tolerance levels on that. So, you put a post about, we’ve done this about speeding cars’, and you’ll get 27 replies about, ‘well, why are you not here and why aren’t you there?’ (Int 19)

The quote points at a fundamental challenge for the police in navigating expanding digital platforms without jeopardising the legitimacy, or perceived effectiveness, of established practices. The wide breadth of police work means that the risks of engaging in transformation in one area can open them up to criticism in another. This creates a situation where digital transformation has started to change police practices, but the combination of opening up strategising to the public and the rapid evolution of digital platforms means the transformation will never be complete.

Contested Transformation

Contested transformation is the second contributing concept to liminal digital transformation. Contestation builds on the example presented in the section on ambiguity where we showed how the move to hybrid working disrupted the established strategy work between the frontline and back-office. We found there was a lack of coherence around the rules and norms needed to underpin large-scale transformation. Consequently, there were parts of the organisation (frontline) which mainly operated within the established rules and norms, whilst other parts (back-office) increasingly worked digitally but without these structures. Those operating outside of the established context struggled to replicate the social practices which had previously supported the strategy work across the two groups. Back-office strategists were left to navigate unfamiliar,

potentially isolating, digital spaces in an organisation which had long valued familiarity, comradery, and shared experiences.

The long-established culture of meeting face-to-face and the perception that informal knowledge sharing between groups should take place within the confines of the traditional office created contestation in digital transformation. Whilst the technology was rolled out in the organisation, there was ambiguity in how to use these digital spaces, partly due to the value only being apparent for some parts of the organisation. Even within similar groups, where everyone was operating on the same platform, technology failed to enable the same benefits which were observed in previous ways of working. Interestingly, strategists found it challenging to develop a perceived ‘safe’ social space in the digital platforms to have open conversations:

Having those conversations and getting that information is a challenge. The technology enables you to share the information, but if you're only relying on Teams, that trust building and the relationship building means people are far less likely to want to share the information and have those more open conversations. (Int 2)

The notion of safe spaces for open conversation became contested as the change unfolded. The new spaces differed in terms of existing structure (digital versus physical), accessibility (available for everyone versus available for some), and norms (familiar versus unfamiliar). This left the digital space incompatible with the existing order of strategy work, as strategists lost their established mechanisms for building trust and forming relationships in person – vital aspects of strategy work in policing. This culminated in a more contested strategising environment that lacked a clear vision for the future and the role that digital spaces should play.

Localised Transformation

Localised transformation is the final contributing concept to liminal digital transformation. Previously, we identified that interdependencies across organisational boundaries influenced changes in strategising practices by restricting large-scale digital technology adoption. Our data demonstrated that although pockets of transformation occurred, these were incongruent with partners. This meant that such changes were contained within local practices. While this provided some short-term benefits for the police, the constrained technological adoption and different perceptions across organisational boundaries restricted change in the wider system. Transformation outcomes were therefore localised and a combined strategic approach to digital transformation was lacking.

Through further investigation of interdependencies, it appeared this localised transformation was also related to limited autonomy. For example, while police described having some autonomy in how they make strategic decisions, without the alignment of partners, this resulted in police being limited in what they could implement. As one strategist explained:

That has been my biggest frustration, this lack of local autonomy, to be able to make changes to meet the dynamic of your area. What I will take forward from it is, don't lose the technology we've got, just make sure that the legislation and the process and the finance is there to actually make it work. I don't mean, from a business perspective, I mean, for the victims and witnesses. (Int 14)

Within a public sector setting, partnership working was essential to deliver an integrated approach to public safety. However, our data shows how the complex nature of partnership working creates interdependencies contributing to incongruent practices and limited autonomy to implement strategic decisions – which in turn leads to localised transformation.

Based on the analysis, we find that transformation in policing is *incomplete*, *contested*, and *localised*, creating a state of liminal digital transformation. In the next section, we illustrate the findings presented here as a model (Figure 2) and further explain the relationships between the key concepts.

DISCUSSION and CONCLUSION

While there is a growing body of literature on digital transformation, there is a need for more studies that focus on how everyday strategy practices lead to broader strategic outcomes (Morton et al., 2022; Karpovsky and Galliers, 2015). Local practices embed strategic intent (Baptista et al., 2021), which can enable or hinder successful large-scale digital transformation. Hence, more research is needed to theorise this relationship. We address this through two main theoretical contributions as discussed below. Following that, we cover the practical implications, limitations, future research, and concluding remarks.

Theoretical Contributions

Understanding of Everyday Strategising

Our first contribution is an in-depth understanding of how changes in everyday digital strategising practices contribute to liminal digital transformation in a public sector organisation. This is important as it sheds light on the specific conditions in local practices that have a broader impact on achieving digital transformation. As shown in the literature review, research has focused on the strategic plans to leverage digital transformation – including strategy formulation, new value propositions, and capabilities (Ellström et al., 2022; Volberda et al., 2021; Hess et al., 2016). In contrast, we demonstrate the value of integrating everyday practices when theorising digital transformation to explain how ground-level activities (Baptista et al., 2021; Peppard et al., 2014) shape larger transformation outcomes (Morton et al., 2022). Therefore, our research extends existing understandings by revealing rich accounts of the complex strategy practices that make up public sector organisations like policing. A sole focus on the procedural and deliberate aspects of digital transformation provides a limited explanation of how it unfolds in organisations and beyond. In line with calls for additional insights into the social practices of digital transformation

over time (Carroll et al., 2023; Lanamäki et al., 2022; Wessel., 2021), we make an important contribution by integrating this perspective into our analysis through the lens of strategy-as-practice. Consistent with the literature (Baptista et al., 2021; Chanas et al. 2019; Henfridsson and Lind, 2014; Mintzberg and Waters, 1985), our findings show how digital transformation is emergent rather than deliberate and shaped by the practices through which it is realised. We extend this further by demonstrating that digital transformation in public sector is liminal and theorise how the local conditions in the everyday strategising practices constrain large-scale transformation.

A Model of Liminal Digital Transformation in the Public Sector

Our second contribution advances digital transformation literature by providing novel theoretical insights into how liminal digital transformation emerges in the public sector and explains its causes. Digital transformation has been understood as large-scale organisational change, brought about by the transformational power of new technologies, which goes beyond the digitalisation of a process or information system (Mergel et al., 2019). Previous studies have suggested how this can result in redefined value propositions and organisational identity (Wessel et al., 2021). However, we propose that such large-scale transformation in the public sector is often unachievable due to strategic misalignment, leading to changes in practices associated with openness of strategy, ambiguity in the rules and norms, and interdependencies across organisational boundaries. From this, we theorise digital transformation in the public sector as being incomplete, contested, and localised, resulting in a liminal state. We put forward the definition of liminal digital transformation as a continuous process shaped by local practices where an organisation is in between an established and emerging state of digital transformation. This theorisation is presented as a model in Figure 2. In the following sections, we explain the model and its dimensions. We also provide a set of propositions to show the relationship between the key concepts in the model.

Strategic misalignment

We identified three strategic elements that interact and make up the strategic context for digital transformation in the public sector. These are *external expectations*, *digital capabilities*, and *risk-averse culture*. We find that strategic misalignment occurs due to the high external expectations placed on public sector organisations to digitally transform. This is driven by strategic directions set by governments to modernise the public sector and improve efficiency through digital technologies (Irani et al., 2023), as well as public expectations of an already technically advanced public service (Mergel et al., 2019). However, we find that there is an inability to meet these external expectations because of limited digital capabilities which have materialised due to budget cuts and a lack of resource. The strategic misalignment is further impacted by a high level of risk aversion (Heaton and Tong, 2023) as a consequence of longstanding bureaucratic structures and processes, and the constant scrutiny and accountability that public sector organisations like police face (Gau et al., 2022). This risk aversion creates an environment where change is seen as something to guard against, not embrace. These three elements influence everyday digital

strategising practices in the public sector, such as in policing, and shape the conditions necessary for change. Based on this, we derive the following proposition:

Proposition 1: The more strategic misalignment between external expectations, digital capabilities, and a risk-averse culture, the higher likelihood for the need to change digital strategising practices.

Openness of strategy and incomplete transformation

Open strategy is not new (Morton et al., 2020; Hautz et al., 2017), but our identification of how it manifests in practices and influences large-scale digital transformation adds further insights to this area. We see the openness of strategy as a key concept in shaping digital strategising practices, causing incomplete digital transformation.

Public sector organisations are aware of their accountability to the public, and strengthening this relationship is an essential part of the digital transformation agenda (Mergel et al., 2019). This is facilitated by digital technologies such as social media. In the current digital climate, the private sector has helped establish societal norms in relation to what can be achieved in using digital platforms for open strategy (Plotnikova et al., 2021; Baptista et al., 2017). However, for the public sector who are trying to replicate this, the situation is often more nuanced (Mergel and Desouza, 2013). While many private sector organisations can manage the shift to open strategising, our study demonstrates that the nature of the public sector makes it difficult to transition their public engagement to the digital space. Most public sector organisations must be available to their population and maintain communication channels and practices that also exist offline. This adds challenges to open strategising as they carry the legacy of established practices and cannot risk jeopardising their legitimacy.

Furthermore, we found that the expansiveness of digital technology, and the widening participation that often comes with it, creates the need for constant adaptation to evolving digital environments. As outlined above, this is often challenging for the public sector to manage due to restricted digital capabilities and resources which limit their ability to effectively manage diverse audiences, different types of engagement, and utilise new technological features (Haro-de-Rosario et al., 2018). The openness can also be challenging due to the constant scrutiny public sector organisations are under, which means they are more risk-averse when it comes to engaging in open strategy. Together, these complex issues lead to a condition in the digital strategising practices where digital transformation is in a constant state of evolution and therefore never complete. Considering this, we put forward the following proposition:

Proposition 2a: The more openness in digital strategising practices, the higher the likelihood of digital transformation being incomplete.

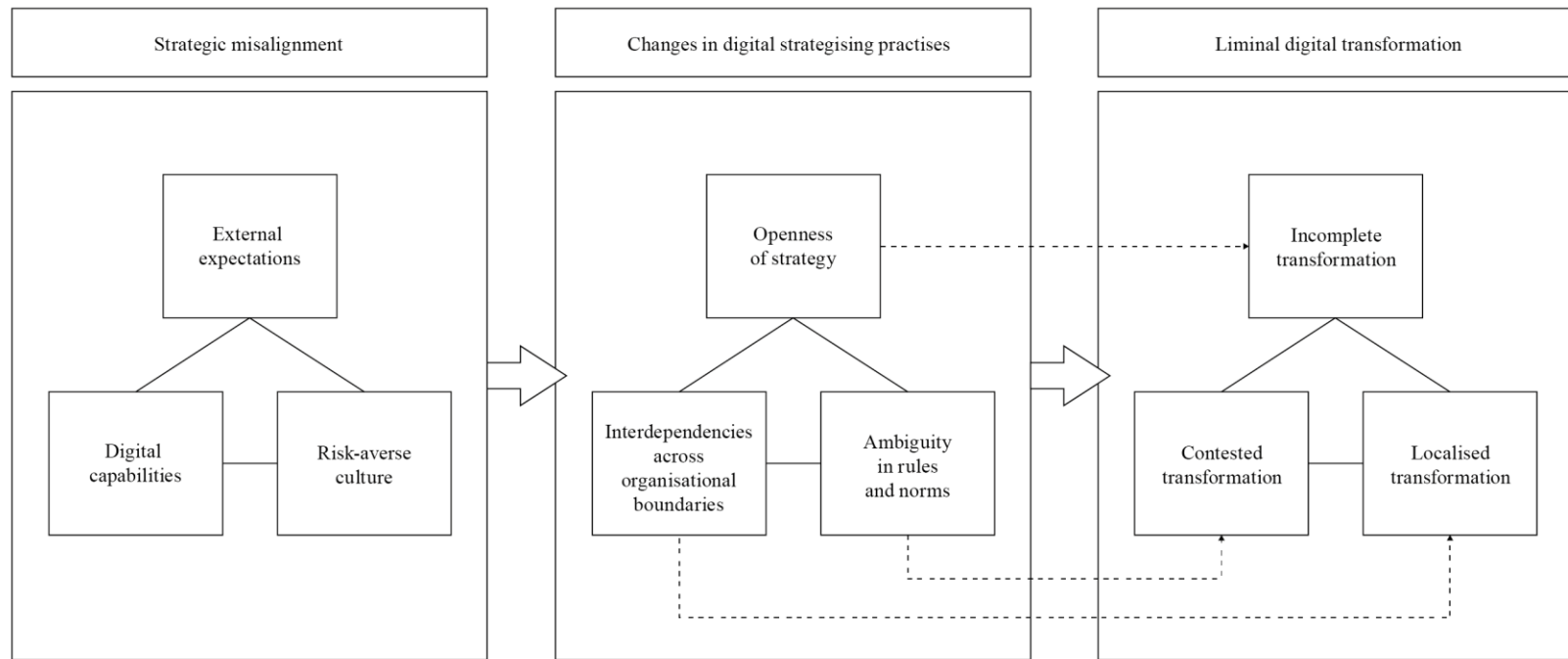


Figure 2. A model of liminal digital transformation in the public sector

Ambiguity in the rules and norms and contested transformation

Research has demonstrated that digital transformation is less about technology and more about the people and culture underpinning organisation-wide change (Carroll et al., 2023; Kane 2019). We extend this perspective by showing that, when ambiguity manifests in the rules and norms, large-scale transformation becomes compromised. As outlined previously, many public sector organisations are characterised by traditional ways of working, bureaucratic structures, and well-established rules and norms (Mergel et al., 2019). In this study, we propose that ambiguity is a key concept in understanding how change in everyday digital strategising practices causes contested digital transformation.

Workforce transformation is one part of digital transformation (Eden et al., 2019), and public sector organisations have started to adopt elements of this, such as reconfiguring to hybrid working through digital technologies. Whilst previous studies have stressed the disruptive power of digital technologies (Vial, 2019), our findings align with Carroll et al. (2023) and demonstrate the difficulty in embedding new technologies into long-established strategy practices. We found that there is a lack of clarity when digital strategising spaces differ greatly from the existing structure and norms, and consequently, existing strategy practices become ambiguous. This highlights the need for actors to create a shared culture by developing rules and norms around digital strategising spaces when seeking to transition to new ways of working. This can lead to a state where strategy practices become aligned, and it is possible to move towards large-scale transformation. However, if ambiguity in the rules and norms remains high, the transformation outcomes will stay contested. Therefore, we propose the following:

Proposition 2b: The more ambiguity in the rules and norms in digital strategising practices, the higher the likelihood of digital transformation being contested.

Interdependencies across organisational boundaries and localised transformation

Public sector organisations are part of a wider network of partners and stakeholders that work towards providing integrated services for the public (Scupola and Mergel, 2022). In this context, we propose the concept of interdependencies across organisational boundaries as a way of understanding the interrelated nature of everyday digital strategising practices and how this leads to localised digital transformation.

Interdependencies show how strategic digital practices of the organisation are bound in a network of stakeholders with their own practices and priorities, only some of which are explicitly shared. This demonstrates how digital transformation transcends organisational boundaries (Hanelt, et al., 2021; Lanamäki et al., 2020) and is tied to relational practice arrangements in the wider context. Our study adds a deeper understanding of the relational nature of digital transformation in the public sector, and the interdependencies that influences large-scale change.

This means that, although local transformation initiatives can occur, when they are not accompanied by changes in the wider context, public sector is not able to transform. These findings

are in contrast to Mann et al. (2022) who found that in the private sector, a focal firm was able to orchestrate digital transformation in the business ecosystem by empowering change amongst other actors. Instead, public sector organisations are held up by other partners who control the levers required for instigating change at a different point in the interconnected process. It is therefore suggested that for large-scale transformation to occur, a system-wide strategic approach is needed to move beyond localised practices. We put forward our final proposition:

Proposition 2c: The greater the interdependencies across organisational boundaries in digital strategising practices, the higher the likelihood of digital transformation being localised.

Practical Implications

Several practical implications can be derived from this study. First, our findings highlight that although digital transformation is in a liminal state, there are examples of strategists that were championing localised change. We recommend that such strategists act as change champions beyond their organisational boundaries with other police and public sector organisations. While resources may be stretched in the public sector, a more networked approach of change champions could help to address the gaps which are hindering good local practices from having wider transformational impact.

Second, our findings suggest that public sector organisations such as the police are currently struggling to adapt to digital work practices, which leads to contested transformation. While it is recognised that not all practices should be digital, we recommend that police organisations and public sector more broadly work towards developing robust digital work policies that provide clear guidelines and rules (Davis et al., 2022). This would help reduce the ambiguity by formalising new norms around digital work and therefore contribute to large-scale transformation.

Third, our findings provide empirical insights revealing the complexity of public sector organisations, who work together with partner organisations as part of a wider system. Based on this, we recommend that policy makers need to apply a holistic approach to digital transformation. This would require strategists from all partner organisations coming together to agree on a way forward. One way to achieve this would be for governments to take a national approach towards developing a digital transformation policy.

Limitations and Future Research

Whilst this study collected rich data to enhance our understanding of the interrelationship between everyday digital strategising practices and large-scale transformation outcomes, it was conducted during a time of global crisis. This created a unique situation which could have influenced the findings and in particular the strategy practices. Policing is an organisation that is slow to change, and the pandemic accelerated the integration of technology and the strategising around it. Future research would benefit from in situ studies of everyday strategising in public sector organisations

post pandemic. Furthermore, a collaborative, co-created approach could produce real impact to inform government and policy discourse, relevant in a public sector context (Desouza and Dawson, 2023).

We have developed four propositions regarding how everyday digital strategising practices shape large-scale digital transformation outcomes. We hope this will provide grounding for further theorisation in other public sector organisations around the world. Future researchers could also consider the following questions: How do public sector strategists experience liminality through their strategy practices? How do they resolve local conditions to facilitate large-scale transformation? Such research could deepen our understanding of the challenges of operating in this space and how strategists navigate this.

Finally, there is a need for longitudinal studies which address questions such as: How do digital transformation strategy practices evolve over time, and how are historical conditions shaping this? Overall, a longer-term view on digital transformation could capture the evolving dynamics of everyday practices and the wider implications on large-scale transformation.

Conclusion

This study responds to calls for more research to take an integrative approach to understanding digital transformation by theorising how strategy practices lead to strategic outcomes (Morton et al., 2022; Karpovsky and Galliers, 2015). This is important as everyday practices embed strategic intent (Baptista et al., 2021; Peppard et al., 2014) and can enable or hinder broader transformation. The specific research question for this study was: *How do everyday digital strategising practices in the public sector shape large-scale digital transformation outcomes?* To address this, we adopted a strategy-as-practice lens which allowed us to capture the ‘doings of strategy’ (Whittington, 1996) in people’s day-to-day activities. We conducted a case study in UK policing which generated rich data about digital transformation efforts in this setting.

We contribute with new knowledge by showing how digital transformation in a public sector context, such as the police, is liminal. We conceptualise this liminality as *incomplete*, *contested*, and *localised*, due to the conditions in the strategy practices characterised by openness of strategy, ambiguity in rules and norms, and interdependencies across organisational boundaries. We propose a theoretical model of ‘liminal digital transformation’ and unpack why this liminal transformation occurs. From this, we derive propositions that explain the relationship between the main concepts. By doing so, we offer a novel view on digital transformation in the public sector and provide timely insights on the importance of the local context to the wider transformation ambitions and external pressures facing institutions like the police.

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Appendix A Example data and first order codes

Example data	First order codes
[...] in the coming decades, law enforcement will face a world where the physical and the digital are increasingly enmeshed, crime is increasingly complex and transnational, and social expectations are evolving rapidly. (Interpol, p. 5) Policing does not operate in a vacuum and cannot stand still in the increasingly digital world we work and live in. The challenges and opportunities that digital disruption present to policing are rapidly becoming defining issues for the service. We must move now and move quickly. (National Policing Digital Strategy, p. 2)	Expectations of a modern and digital police organisation
[...] the COVID situation had added speed and impetus to our existing strategy[...] (Int 5) I think the COVID situation is opened that particular Pandora's box. (Int 5) I think it [COVID-19] has forced us to move with the times in a way that I think otherwise would have been very slow to react to. (FG6)	The pandemic demonstrated the need for digital service delivery
[...] still relies on 'old-school' infrastructure and processes (Deloitte report, p. 2)	Limited expertise in using new digital technology
[...] it's like anything else in policing, you start spinning the plate, and it starts to wobble and spin it a bit more. But then actually another plate becomes far more important. And you have to just throw that one away. (Int 6) Policing is reacting, right, I've solved that. Brilliant, Next one. (FG5)	Policing as a reactive organisation
We need to have better training, I think, better rollout of new IT systems as they're coming in. We do need the right people with the right skillsets to be able to deliver those. (FG4)	The need to develop new skillsets
Policing as a whole is a bit scared of change, we can be a bit, 'let's just think about the risk of that' and so we don't necessarily charge into things unless there's a need to. (FG1)	Caution towards change and innovation
Most police officers, you know, without massive amounts of training, are doing the right thing and saying the right thing so it's very rare that the wheel comes off, but when it does, because it's the police, the media and the public are really quick to pick up on it. (Int 18)	Fear of making mistakes
The dog theft trend that's been going around the country. We weren't seeing in the statistics any real reason to look. However, we knew from social media, that it was a massive thing for people in [location]. So, we did a lot of promotional work about how to keep your dog safe and we ran a campaign around dog theft. (Int 10)	Utilising social media to involve the public
The demand is increasing, and we're becoming more reliant on it [social media], but public expectation is, well, most people imagine that the police are like Minority Report, where they're moving things around in a virtual arena, and obviously, we're not! (Int 16)	Slow adoption in a fast paced digital landscape
We've traditionally used Facebook and Twitter, just in the past year we started moving into Instagram. Previously, we had a broad approach where we just put everything on every platform. Now we want to develop the right message for the right platform [...] My granddaughter tells me Facebook is only for older people so she wouldn't dream of touching it with a bargepole. (Int 18)	Managing resources
Sometimes it's a bit stiff and police speak, and just don't connect with people [...] I quite like the idea of messages that don't even look like they come from the police. Like, people talking about whatever the issue is and having a proper discussion around it. I'd like to see us moving into a less formal approach, taking a bit more risk with things. (Int 18) That's still, in my view, quite a one-way street. We tend to promote information out rather than having a proper dialogue. (Int 2).	Trying to manage the informalities
One of the battles that we grappled with, even ethically as a team, is that risk that the organisation could be divided into two with a huge number of people who were almost being sent home [...] There was a real risk that you've got our frontline, who of course, don't have that choice [...] there was a risk that officers look in their own offices and feel everybody's gone home. (FG7)	Working as one versus 'us and them'

The strategic meetings that I've Skyped into, yesterday there was a three and a half hour one, at the end of it I think 'what the hell was all that about?' and I genuinely wonder if it's not me being bright or if it's not me understanding what they're all talking about, is everybody in the same boat as me? (Int 6)	Lacking space for informal knowledge sharing
I think some of it could have been a lot more controlled and organised. And I think that'd be one of the biggest learning points from me in that there could have been more practices put in place to manage the change, and allow the departments, the specialists departments to lead and influence that change [...] people have just, in a lot of senses done what they've wanted. (FG5)	Confusion in guidance and rules
So within my portfolio sits all things CJS, so the case progression journey from point of charge through to outcome at court, I've also got responsibility for custody services. (Int 14)	Police as end-to-end delivery
So that technology is there for police officers, I think it would be a massive time saving, and they don't have to sit in court all day. We have tested some technology on our handheld devices, where we could actually link into the court. So, you could literally go and park up somewhere or just nip back to the police station, which would be brilliant. Again, it works. The courts are struggling to get the judiciary on board with it [...] I'm not giving up on it. It's something I'm still badgering them about. (Int 8)	Struggling to get buy in from partners
I think we do lead the way with partners and the speed that we can turn things around. (FG1)	Being ahead of partners
Often have to try and manage their way through unintuitive, outdated systems [...] build flexibility into our systems so we can respond quickly and easily to change (Ministry of Justice, 2022) The way that the broader criminal justice system has responded, I would have expected to be better [...] policing is criminal justice end to end so getting justice for victims [...] we've got, in my view, an archaic criminal justice system, that could be a lot more slick. I would have liked to have seen becoming more progressive. (Int 1)	Incongruent attitudes and managing different cultures
So we really have to try and we have to adapt. (Int 15)	Continuously evolving
We've been able to engage with members of the public through social media, but again, you can see the tolerance levels on that. So, you put a post about, 'we've done this about speeding cars', and you'll get 27 replies about, 'well, why are you not here and why aren't you there?' (Int 19)	Increasing demands and public expectations
There was a real risk for us and I don't know if we ever fully gripped this as a force. There was a real risk that you've got our front line, who of course, don't have that choice . . . I can't say whether we really, resolved that one, and I think there'll always be that sense of, well, you were luckier than us because you could work from home and we couldn't. (FG7)	Lack of coherence around the rules and norms
Having those conversations and getting that information is a challenge. The technology enables you to share the information, but I think if you're only relying on Teams, that trust building and the relationship building means that people are far less likely to want to share the information and have those more open conversations. (Int 2)	New spaces are incompatible
So you look at somebody being remanded into custody, rather than physically taking them to a court building, to let them appear through a video link from the custody suite, which sounds really sensible, sounds reasonable, why wouldn't we be able to do it. But then actually, the law doesn't allow us to do it places us in a really difficult position. (Int 1)	Restrictions in strategising
That has been my biggest frustration, this lack of local autonomy, to be able to make changes to meet the dynamic of your area. What I will take forward from it is, don't lose the technology we've got, just make sure that the legislation and the process and the finance is there to actually make it work. And I don't mean, from a business perspective, I mean, for the victims and witnesses. (Int 14)	Limited autonomy