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Who Answers? Who Judges?
Accountability Perceptions in Digital Public Health Services:
The Case of France's Mon Espace Santé from 2019 to 2026.

MA Thesis

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Tartu, 2026

Authorship Declaration

I have prepared this thesis independently. All the views of other authors, as well as data from literary sources and elsewhere, have been cited.

Word count of the thesis: 24 212

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Date 18/05/2027

Abstract

As European governments increasingly delegate the governance of sensitive personal data to centralised digital platforms, questions of accountability to citizens have become structurally urgent yet analytically underdeveloped. This thesis therefore examines how accountability is perceived and understood by public officials and civil society, in the case of Mon Espace Santé (MES), France's centralised digital health care platform, as an example of a digital public health service. To capture these understandings, ten semi-structured interviews were conducted, with five public officials and five civil society representatives. The 2019 law introducing MES, its following decrees, public communications and consultation reports were consulted for data triangulation. This thesis applies Bovens (2007) framework of accountability as a social relationship between an actor, here the government, and a forum, the citizens. Overall, this thesis aims to contribute to academic research on accountability in digital-era governance by highlighting differences in understandings and perceptions.

Keywords: Accountability, Bovens, actor, forum, Digital Era Governance, digital public health services, France, Mon Espace Santé, qualitative framework analysis, critical realist approach

Acknowledgements

I would like to sincerely thank my supervisor, Kristina Muhhina, for her precious guidance and support while completing this thesis. I am also very grateful for the availability and enthusiasm of my interviewees. Lastly, a heartfelt thank you to my friends and family for their encouragements during the last writing stages.

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List of Abbreviations

DEG	Digital Era Governance
EU	European Union
GDPR	General Data Protection Regulation
MES	Mon Espace Santé
NPM	New Public Management

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Introduction

Accountability is everywhere and nowhere. It is one of the leading concepts of public administration, yet its ambiguity renders it elusive; simultaneously invoked by policy makers, scholars and citizens, but rarely defined in the same way. Scholars have described it as a golden concept that no one can oppose, projecting images of transparency and trust, while behaving chameleon-like, shifting meaning according to context and the interests of those invoking it (Ince, 2018; Sinclair, 1995). Without a unified definition, detecting, studying and implementing of accountability become fundamentally difficult (Papadopoulos, 2023; Bovens, 2007a). The European Union (EU) has sought to address this by providing the following definition: accountability is understood as mechanisms to ensure that governments, public institutions and official actors take responsibility for their actions and accept consequences for misconduct (Council of Europe Portal, n.d.). In practice, however, this entails that actors genuinely recognise wrongdoing, and that oversight institutions possess the awareness and the legitimacy to impose sanctions. As governance grows more complex, neither condition can be taken for granted (Bovens, 2007b).

Beginning in the 1990s, the first waves of automation began to transform public administration, and following innovations such as the Internet have fundamentally transformed how the public sector functions (Dunleavy et al., 2006). This transformation was most visible in the expansion of digital public services, which are platforms through which citizens can access healthcare, social welfare, taxation and administrative functions. These platforms tend to concentrate large amounts of personal data in state hands and raise urgent questions about how the data is governed and by whom. In response, the EU implemented regulations to govern the difficulties of digital public services, most significantly through the General Data Protection Regulation (GDPR). Article 5 of the GDPR mandates the principles with which data controllers must comply to demonstrate accountability. This includes lawful and transparent processing, purposeful limitation, data minimisation, accuracy, storage limitation, and the protection of data against unauthorised access. Yet digitalisation renders these requirements difficult to enforce due to opaque-decision making, diffused responsibility and technical infrastructures that are difficult to understand (Pasquale, 2015). Accountability is therefore not only legally contested at the EU level, but also practically contested at the point where digital systems meet institutional actors on the ground.

This tension translates into this thesis's research puzzle. If accountability is formally mandated by law but contested in practice, opaque, and differently understood by those who claim, implement and evaluate it, a necessary first step is to begin to map these divergent perceptions and identify where they are most visibly at odds. This puzzle is academically significant for two main reasons. First, while a substantial body of literature examines accountability in digital governance in the abstract (Bovens, 2007a; Pasquale, 2015; Dunleavy et al., 2006), comparatively little empirical work examines how accountability is actually understood and represented by the range of those involved in a specific digital public service, across institutional documents, public officials, and civil society simultaneously. Secondly, existing scholarship tends to treat accountability as either a normative standard to be measured against or as a structural deficit to be diagnosed, as opposed to a concept whose meaning is actively constructed and contested by different individuals in different positions. This thesis addresses these gaps by treating accountability as an empirically open question rather than a fixed benchmark.

Examining where these tensions surface most visibly requires grounding the analysis in a specific national context, one where digital ambition, institutional complexity and accountability pressures converge clearly enough to make the stakes legible. France offers precisely this. Positioning itself as a future digital leader within the EU, France has launched a broad range of digital public health services to position itself at the forefront of member states' digitalisation (Direction générale des Entreprises, 2024). Yet this ambition has already generated accountability conflicts of legal significance. Most notably in the Health Data Hub case, where the Council of State [FR: Conseil d'État] (2021) was summoned to mediate jurisdictional conflicts over data hosting and GDPR compliance. France is therefore not merely an ambitious digital actor but an already contested site where accountability questions have reached the highest levels of administrative law.

It is in this context that Mon Espace Santé (MES) represents a particularly interesting empirical case. Launched in 2022, MES is a public digital health service which stores health information that is accessible to patients and healthcare professionals (Agence du Numérique en Santé, 2022). It is recent enough to reflect current accountability frameworks under French law and EU regulations, and established enough to have generated institutional responses, public debate and civil society scrutiny. Crucially, MES invokes a wide range of actors, such as public officials,

regulatory bodies, healthcare institutions, and civil society organisations, all operating at different levels and with potentially divergent understandings of what accountability is and ought to require.

The goal of this is to map how accountability is understood and represented across different actors involved in MES, and to identify where those perceptions diverge. To pursue this objective, the central research question is: How is accountability understood and represented in France's national digital health platform, Mon Espace Santé, across institutional documents, public officials, and civil society actors?

To analyse this question, this thesis draws on Bovens' (2007a) conceptual framework of accountability as a social relation between two distinct parties. The first party, namely the actor, is responsible for justifying their behaviour, while the second party, the forum, holds the authority to evaluate and impose consequences. This framework also establishes that the relation of accountability is three staged. The first stage is the information stage, requiring that the actor produce a justification, followed by a debate stage between the actor and the forum, and is concluded by a consequence stage where the forum imposes sanctions if needed (Bovens, 2007a). Drawing on this framework, the theoretical expectation of this thesis is that accountability in MES will be understood differently depending on an actor's institutional position; those responsible for MES are expected to emphasise procedural compliance, while oversight bodies and civil society actors are expected to foreground substantive outcomes and access to redress. These divergences are expected to be most pronounced at the debate and consequence stages, where the framework predicts asymmetries of information and legitimacy becomes most consequential.

To answer the research question, this thesis adopts a qualitative single-case study design, with MES as the case. Data is drawn from two sources, firstly, a document analysis of institutional texts including legislation, official reports, platform documentation and regulatory guidance; and secondly semi-structured interviews with public officials and civil society representatives involved in or responding to MES. The analysis applies Bovens' (2007a) framework as the analytical lens, coding the data according to the three stages of accountability and the actor and forum distinction. This approach allows for a systematic comparison of how accountability is constructed across different positions and sites within the same case.

This thesis is structured into four chapters and a conclusion. The first chapter explores the existing literature on accountability. It is divided into four sections to first explain how literature has

maintained the relevance of accountability for governance and democracy, and how its meanings have changed over time. The chapter then dedicates itself to situating accountability in the realm of digital governance before further narrowing down to the context of digital public health services. This section concludes by drawing all the literature together to formulate the thesis's research question. The second chapter introduces the theoretical framework that underpins the analysis of this thesis. In continuity with the first chapter, it is also divided into four sections that progressively refine the analytical lens of this thesis. It starts by outlining the Bovens' (2007a) theoretical framework of accountability as a social relation between an actor and a forum. This chapter then elaborates on the characteristics of these two groups before moving on to the three stages of accountability, information, debate and consequences. This chapter ends with a section dedicated to contextualising the framework in digital governance. Chapter 3 introduces the methodology of this thesis, introducing the research design, case selection, principles of data collection, method of analysis, operationalisation, and ethical considerations, researcher positionality and limitations. The final and fourth chapter presents the findings and analysis. In accordance with the theoretical framework and the method of analysis, this chapter is organised into four sections, the first three of which will cover different stages of accountability as a relation between an actor and a forum, and the last covers themes that emerge from the interviews and document sources. Finally, the thesis concludes by bringing together the main findings and reflecting on their implications. It revisits the research question, considering the analysis and discusses the broader contributions to existing literature. Lastly, this conclusion also highlights the limitations of the research, while also suggesting paths for future research.

1. Accountability Under Pressure: Democratic Stakes and Digital Transformations

This chapter demonstrates the relevance of accountability as a democratic objective and situates it within the current governance context, as uncovered in academic literature. To do so, this chapter is divided into four sections. Section 1.1 establishes the democratic case for accountability by tracing the origins and evolution of accountability as a governance concept. Here, particular attention is brought to how its meaning has expanded as governance transformed in the 20th century. The following section focuses on the transformation of accountability under Digital Era Governance (DEG), arguing that digitalisation does not simply relocate existing accountability relations to new platforms but structurally complicates them. From this section, the health sector and its digitalisation of public services are highlighted as a context in which accountability relations and challenges are explicit. The last section draws on these arguments, identifies the gap in the existing literature that this thesis addresses, and presents the research question of this thesis.

1.1 Accountability in Democratic Governance

The quest for accountability has long been discussed among individuals, philosophers, and now political science scholars, and has been gaining prominence in recent decades (Newell & Bellour, 2002; Ince, 2018; Dubnick & Neward, 2002). However, despite or because of this popularity, accountability remains analytically contested and thus an unstable concept in governance studies. The term itself has been described as an ever-expanding concept, stretched across a wide range of meanings (Mulgan, 2000), as well as chameleon-like, as it adapts its meaning to its institutional environment and to the interests of those invoking it (Sinclair, 1995). This ambiguity has become its weakness, as the appeal of accountability tends to outpace its analytical precision (Papadopoulos, 2023). Before establishing why accountability is the appropriate lens for this thesis, it is necessary to trace how the concept evolved, why dominant frameworks for understanding it have been deemed insufficient, and why reducing it to one value among others, as is common in good governance literature, risks further obscuring its meanings.

The historical roots of accountability are instructive, precisely as they shed light on the concept's dual yet sometimes conflicting character. Zumofen (2016) points to 2000 BC as its earlier mention, when King Hammurabi of Babylon sought to establish a legal code to control how individuals entrusted with managing the assets of others were to remain accountable. In his work, Bovens (2007a) traces its first mention to Anglo-Norman England, when William the Conqueror requested that property holders "render a count of what they possessed" (p. 448), while Ancient Greek practices called upon leaders to publicly answer for their actions (Zumofen, 2016). Together, these interpretations form two roots for understanding accountability: first, counting, meaning the provision of information and justification, and secondly, answering, meaning the obligation to respond to a group with the capacity to judge. As this section will demonstrate, the tension between these two dimensions has yet to be fully resolved in the scholarship that follows and remains to date a central challenge for accountability in digital governance contexts.

The first systematic theoretical debate which directly engaged this tension opposed two scholars, Carl Friedrich and Herman Finer, in the early 1940s. Friedrich advocated for internal and professional accountability, arguing that professional standards and technical skills are sufficient for public officials to accomplish their work (Zumofen, 2016). This is in line with previous scholars Gaus, White and Dimock, who first introduced in 1937, the idea of inner checks for public officials for them to acknowledge their professional standards (Zumofen, 2016). Finer rejected this by calling for the necessity of external checks to be conducted by legislators or the political sphere at large (Zumofen, 2016). While this debate is typically presented as a historical event, its stakes remain pertinent. Friedrich's stance that expertise and professional ethics may substitute external scrutiny predicts arguments still expressed today about technocratic and digital governance as they present contexts within which technical complexities of decisions make external oversight difficult. The flaw of this argument is that professional accountability without external enforcement provides no guarantees of redress should norms be violated. Oppositely, Finer's advocacy for external checks is more robust, yet also faces limitations, namely that meaningful oversight presumes that overseers can understand and evaluate the conduct they are scrutinising. Overall, while this debate was originally embedded in the concept of responsibility, half a century later, this debate has come to be described as an argument over two different types of accountability, namely external or internal (Mulgan, 2000; Romzek & Dubnick, 1987). The latter has extended accountability beyond its initial meaning of external scrutiny, as argued by Finer, to

now include Friedrich's sense of inner responsibility or accountability as part of the professional conscience of public officials (Mulgan, 2000).

This tension intensified as states and their subsequent bureaucracies expanded. Max Weber's influential conception of hierarchical authority, developed in 1922, entailed that highly structured hierarchical systems of authority and oversight could manage the actions of lower-ranked public officials, usually through disciplinary measures inherent to bureaucratic organisations (Zumofen, 2016; Labolo, 2013). These arguments laid the foundation of the Weberian Bureaucracy model, which dominated political science studies during a large part of the 20th century (Białożył, 2017). More precisely, this model provided a clear accountability logic; authority relations flow downwards, and answerability flows upwards through fixed chains of command. However, this clarity faced limitations as critics from the 1970s onward argued that its lack of flexibility created opacity over accountability and became self-protective (Białożył, 2017). In response, New Public Management (NPM), which emerged in the United Kingdom under Thatcher and was rapidly welcomed by Western governments, sought to resolve this through decentralisation, privatisation, and the introduction of market mechanisms into public administration (Białożył, 2017). NPM's approach to accountability was focused on results; public actors could be held to account through performance targets, results assessments or competitive pressures rather than hierarchical command (Bovens et al., 2014). However, this model failed to anticipate that decentralisation and privatisation would diffuse accountability across a growing number of actors, making it unclear who is accountable to whom and for what. As Bovens (2007a) established, this produced the 'many hands problem,' a structural fragmentation of accountability chains, that intensified with digitalisation. In other words, NPM did not solve the accountability problem it inherited from Weberian bureaucracy; it redistributed and exacerbated it.

It was in this context that the principal-agent (PA) model became one of the dominant analytical frameworks for accountability relations. Originally borrowed from economics, the model conceptualises accountability as a relationship between a principal and an agent, whereby the agent undertakes actions on behalf of the principal while the principal structures incentives to align the agent's behaviours with their interests (Gailmard, 2012). The allure of this model comes from its ability to offer a clear structure of delegation and control. However, its limitations have also been extensively recorded. Rajala and Jalonen (2025) explained that real governance contexts do not

tend to involve a single principal or a single agent, and accountability chains in public services are non-linear, and with changing boundaries, objectives and challenges. Therefore, accountability chains in public services are multi-directional and involve multiple stakeholders, often simultaneously (Barbera et al., 2025). When accountability is fragmented in this way, the PA's model binary logic becomes analytically insufficient as it fails to specify who bears responsibility when multiple actors contributed to an outcome, or when the principal itself is also diffused and potentially internally divided. The latter, Bovens (2007a), describes it as the problem of many eyes. Moreover, this model's core assumption of self-interest, that agents will evade accountability in the absence of external monitoring, has also been questioned as incomplete, and potentially as a misrepresenting account of public sector motivation (Le Grand, 2003).

On account of these difficulties, stewardship theory appeared as an alternative framework to address this motivational limitation. This theory challenges the PA's assumptions of self-interest, arguing instead that public officials are intrinsically motivated to act as stewards for the collective good, making external monitoring unnecessary and counterproductive (Davis et al., 1997). This approach evades the reductive self-interest assumption of the PA model and better captures the values and commitments that public service roles embody. Nevertheless, stewardship theory is limited by its grounding of accountability as an individual or professional virtue; it does not provide any analytical mechanisms for explaining or responding to accountability failures (Bovens, 2010). Put differently, if an official acts in good faith, the theory offers little substantive guidance, and if they do not, the theory lacks the mechanisms to enforce accountability or correct behaviour. Papadopoulos (2023) warns that formal accountability arrangements often risk becoming empty shells when they depend on voluntary compliance rather than enforceable obligations, a limitation that stewardship theory does not answer.

Furthermore, a considerable strand of scholars has associated accountability within the broader discourse of good governance by treating it as one principle alongside transparency, the rule of law, fairness and trust (Johnston, 2002; Graham et al., 2003; Simonis, 2004; Cornwall, Lucas & Pasteur, 2000 cited in Newell & Bellour, 2002). International institutions have also contributed to this trend; the United Nations defines good and democratic governance through the lens of transparency, while the World Bank refers to the combination of transparent and accountable institutions as a measure for good governance (Gisselquist, 2012). The issue with this conflation

is not that transparency, trust, or fairness are insignificant; it is that positioning accountability as one value among others obscures the relationship of dependency between them. Dubnick (2003) contended that accountability is not a parallel value to transparency but rather its generative condition; it is via accountability mechanisms that transparency is produced, that authority can be challenged in impartial arenas, and that the quality of public services can be purposely improved. Thus, without accountability, transparency becomes information without consequences, trust becomes an expectation without recourse, and fairness becomes an aspiration without enforcement. T. Hall and colleagues (2017) corroborate this, explaining that without accountability organisations, societies would find it difficult to operate efficiently, a claim that is not merely about performance but about the conditions under which democratic governance remains legitimate. Diminishing accountability to one component of a good governance checklist risks replacing a mechanism with an outcome, and in doing so, losing the analytical purchase needed to understand why governance fails.

Overall, the literature on accountability presents three interrelated inadequacies: reductive assumptions, no account of failure, and conceptual dilution. Underlying these inadequacies is the fundamental problem that accountability remains an analytically unstable concept, stretched across competing meanings. These inadequacies become structurally consequential as governance digitalises, which is precisely the focus of the next section.

1.2 Digitalisation and the Complexification of Accountability

Having established the importance of accountability for democratic governance, over time and across distinct governance paradigms, this section situates accountability within the current governance context of Digital Era governance (DEG) (Dunleavy et al., 2006). The motive for this contextualisation is to demonstrate how DEG marks a qualitative rupture in the conditions under which accountability functions. Digitalisation does not simply relocate existing accountability relations; it structurally complicates them in ways previous governance paradigms did not anticipate. Three challenges are highlighted in academic literature: the fragmentation of responsibility chains, the deepening of systematic opacity, and the erosion of public accountability

through the growing role of private and extraterritorial actors. Altogether, these problems have transformed the conditions for accountability to operate, and it is in this context that the EU has become the most regulated digital space, with France in particular positioning itself as a hopeful leader of digital innovation in this domain (Bradford, 2012; Direction générale des Entreprises, 2024)

DEG was introduced by Dunleavy, Margetts, Bastow and Tinkler (2006, p. 480) as a post-NPM governance form organised around three trends: reintegration, to address NPM's decentralisation logic and rejoin disaggregated functions into coherent services; needs-based holism, to organise public services around citizen needs and lifestyles; and digitisation, understood not as an additional infrastructure but as the constitutive logic of public administration. The implicit accountability promise of DEG was considerable. By reintegrating fragmented delivery chains and creating unified public services supported by digital platforms or tools, it appeared to offer the path out of the many hands problem that NPM has created (Lindquist & Huse, 2017; Mangai & Ayodele, 2025; Setyarto et al., 2025). On this account, digital architecture should allow clearer attribution of accountability, improved transparency through data availability, and more responsive service delivery. The central paradox of DEG, and the highlighted tension of this section, is that the governance model created to solve the accountability damage of NPM has produced new accountability deficits of its own. Margetts and Dunleavy (2013), reviewing their framework a decade later, recognised that DEG's reintegrative goals have been consistently undermined by the features of digital infrastructure they depend on; its complexity, its opacity and its structural reach beyond different jurisdictions.

The first challenge digitalisation poses to accountability is the fragmentation of responsibility. As mentioned in the above section, Bovens (2007a) identified the 'many hands problem' as a structural consequence of NPM's decentralisation rationale, by which tasks have been distributed across multiple actors making it progressively troublesome to assign clear responsibility for collective outcomes. Digitalisation intensifies this problem as digital public services are typically designed, built, operated and maintained by numerous actors (Janssen & Helbig, 2018). In practice, a public institution may contract a private company to develop the service and to provide cloud infrastructure, for example (Tanveer et al., 2025). When a digital service malfunctions, whether due to a data breach, an erroneous automated decision or a system outage, the question of who is

accountable does not generate a clear answer (Lee & Ospina, 2022). This fragmentation is especially meaningful in the context of digital data storage and management. If personal data stored by a public digital service is exposed, compromised or unlawfully accessed, the accountability chain typically spans across multiple actors, none of whom individually control the full system and each of whom can point to another as the source of failure (Schillemans & Bovens, 2011). In addition, accountability is not simply shared but becomes structurally obscured; contractual arrangements between these actors are seldom public, technical architectures are not frequently revealed, and the division of data protection obligations for data controllers and data processors under frameworks such as the GDPR persists as a site of legal and practical contestation (Pasquale, 2015; Lynskey, 2015; Kuner et al., 2012). This matters for accountability in a practical sense; if no one human actor can be identified as having made a decision, the accountability as a mechanism, as previously described by Bovens (2007a), has no starting point.

Another added complexity that emerges from digitalisation relates to the legal jurisdictions under which actors may fall. While traditional public services were delivered through physical institutions and subject to clearly defined national or regional jurisdictions, digital services are cross-border: data may be stored in one country, processed in another, and managed by a company headquartered in a third (Sharma et al., 2021). These geographical differences entail differences in the legal forms of accountability that actors may be subject to and can produce accountability gaps that no single actor within the chain possesses the appropriate authority or incentive to close (Irion, 2013). The institution commissioning a digital service formally retains accountability to citizens, yet its capacity to exercise meaningful control over the infrastructure through which the service is delivered is structurally constrained by the terms of its dependence on providers operating beyond its jurisdictional reach (Irion, 2013; Radu, 2021). This spatial element of the many hands problem is not simply technical; it directly complicates the following challenge, as one cannot hold an actor to account for conduct it cannot access nor understand.

This challenge relates to the relationship between digitalisation and transparency. In this regard, digital governance is typically presented as an opportunity to enhance transparency, facilitated by increased data availability, knowledge transfers and firmer monitoring, among others (Hanisch et al., 2023). However, Bannister and Connolly (2011) argue that transparency related to data availability is not equivalent to accountability as meaningful answerability. By this, they mean that

access to data does not automatically produce more understanding; it creates misinterpretation and instances where data may be misused, sometimes even deliberately.

The conditions under which digital public services function create layers of opacity that open data initiatives fail to shed light on. As mentioned above, contractual arrangements between public commissioning bodies and private infrastructure providers are usually withheld from public disclosure. The technical arrangements of these platforms, from the systems through which data is stored, accessed, shared and protected, are not often publicly documented (Veale & Zuiderveen Borgesius, 2021). As well, the terms and conditions under which third-party processors can access data on behalf of a public institution are not always visible to the citizens whose data they concern (Zarsky, 2013). Pasquale (2015) describes this as the black box society, which is an environment in which consequential decisions affecting citizens' lives are conducted through processes that neither they, nor legislators nor sometimes the commissioning public bodies can meaningfully scrutinise. This creates a problem for scholars' adept of accountability as a relation between an actor to be held accountable and the other to hold them accountable, as the latter presupposes the ability to identify what happened, under what conditions and through what infrastructure. In this case, technical or contractual opacity undermines legibility, leading to a situation in which formal accountability exists but is practically unenforceable.

This issue is further intensified by speed asymmetry, whereby digital infrastructures produce consequences, including multiplying data breaches, accumulating access logs, and cascading system failures, at a rate that oversight built for traditional institutional cycles cannot match (Danaher, 2016). Yeung (2018), in examining the governance of algorithms, observed that the pace of technological development systematically challenges the capacity of legal frameworks to keep pace, producing a governance lag between innovation and oversight. While this analysis is developed in the context of algorithmic regulation, the dynamic identified also applies to digital public services more broadly (Bradford, 2024). This opacity thus does not merely limit accountability in individual cases, it also structurally degrades the conditions under which oversight can be applied, and in doing so, permanently sets the fragmented responsibility identified in the first challenge. In other words, if one cannot identify which hands were involved in a particular action, one cannot scrutinise or evaluate it.

The third, and somewhat most politically consequential challenge, relates to the growing role of private actors in the delivery of public digital services (Janssen & Helbig, 2018). NPM's privatisation rationale introduced private contractors into public service delivery (Hood, 1991). In principle, the accountability implications were manageable so long as those private actors were subject to national law, procurement rules and courts. However, as previously mentioned, the globalisation of digital infrastructures has fundamentally altered these conditions. As of today, the dominant providers of cloud computing, data storage and software platforms are overwhelmingly headquartered in the United States and thus operate under its legal frameworks (Srnicsek, 2017; Irion, 2013). This means that for digital public services that, for example, are created in the European Union (EU) in the interest of its citizens, they legally operate outside of the scope of European legislation (Irion, 2013; Lynskey, 2015). This results in a structural accountability gap, as public services dependent on private foreign infrastructure cannot be meaningfully audited, sanctioned or redirected by the public institutions responsible for those services (Irion, 2013; Radu, 2021).

This extraterritorial dimension is not just legal but also operational. For example, if one considers the United States' Clarifying Lawful Overseas Use of Data Act, or CLOUD Act (2018), allows American federal law enforcement to compel the disclosure of data stored in US-headquartered companies regardless of where the data physically resides, creating a direct conflict with European data protection laws (Daskal, 2018; Swire & Hemmings, 2017). Daskal (2018) added that this places European institutions using American cloud infrastructure in a condition of irreducible jurisdictional uncertainty as they are subject to EU obligations and competing foreign legal obligations. Irion (2013) further argued that public institutions in this context cannot guarantee the protection of citizen data, as the infrastructure through which their services are provided remains outside of their jurisdiction. The result, as both scholars demonstrate, is a structural accountability gap in which formal public accountability for citizen data coexists with a practical inability to prevent foreign access.

Moreover, it is in this context that the EU has emerged as the most institutionally ambitious site of regulatory responses to accountability challenges of digital governance. The GDPR (2018) represents the most far-reaching attempt to address the jurisdictional gap through supranational regulations, establishing jurisdiction over the personal data of EU citizens regardless of where

processing may occur and thus imposing obligations on any actor involved, irrespective of their corporate location. Later legislations, namely the Data Governance Act (2022), the Data Act (2023), and the EU AI Act (2024), have extended this across data sharing, platform interoperability, and artificial intelligence, consolidating the EU as the world's most developed site of digital policy (Cervi, 2022).

However, the enforcement of this legislation has persisted in revealing the limits of regulatory reach when applied to actors whose operations are distributed across different jurisdictions. The GDPR's one-stop-shop, intended to streamline enforcement by designating a lead supervisory authority in the member state of a company's EU headquarters, has in practice, concentrated enforcement responsibility in the Irish Data Protection Commission, which has generated criticism of enforcement delays and inadequacy (Lynskey, 2015). Veale and Zuiderveen Borgesius (2021) also argued that regulatory frameworks focusing on documentation and output-based obligations leave the question of structural dependency unanswered. With respect to the EU AI Act, they questioned whether public institutions maintain the practical capacity to operate, audit and redirect systems for which they are legally responsible. The greater issue, as identified by Irion (2013) and Radu (2021), is that the EU's regulatory response operates through legal obligations on actors it does not control, rather than through ownership or operational power over the infrastructure itself. Thus, the regulation can impose requirements and sanctions after the fact but is unable to ensure that the digital services are subject to meaningfully public accountability before or during their operation.

This limitation has led to a distinction between regulatory compliance and digital sovereignty as two non-equivalent responses to accountability challenges of digital governance (Irion, 2013; Tambou & Pato, 2021). France emerged as one of the most explicitly articulated national-level responses to this distinction within the European context. The National Cloud Strategy [FR: *Stratégie Nationale pour le Cloud*] (Gouvernement français, 2021) set the trusted cloud framework and the SecNumCloud qualification scheme administered by ANSSI, demanding cloud providers serving public institutions to meet sovereignty criteria that US-headquartered providers under the CLOUD Act cannot satisfy. France's current President Emmanuel Macron's address at the AI Action Summit in 2025 expanded this logic to the democratic register, framing digital sovereignty as a precondition for democratic accountability over digital services.

The importance of this difference became undeniably visible in the case of the Health Data Hub. Created in 2019 with the aim of centralising French health data for research purposes, the platform was initially contracted to Microsoft Azure. This decision was challenged by La Quadrature du Net, a French collective campaigning for digital rights and freedoms, who stood before the Council of State [FR: Conseil d'État] on the grounds that relying on an American cloud hosting, placed the data under the CLOUD Act jurisdiction and not under GDPR protections (Conseil d'État, 2021). The court acknowledged this legal risk and subsequently called for a transition to a European host. Tambou and Pato (2021) identify this as a clear illustration of how formal public accountability for health can coexist with a structural inability to practically guarantee it. Ultimately, France's commitment to migrating the Health Data Hub to a sovereign cloud operator represents, with regard to this literature review, a practical example of how the sovereign digital capacity can close this gap. However, this step alone does not shield French digital public health services from sector-specific accountability challenges. Consequently, the next section illustrates how this specific context creates additional considerations.

1.3 Digital Public Health Services and the Stakes of Accountability Failure

The three challenges uncovered in the previous section manifest across the full range of digital public services. However, what distinguishes the health sector is not that these problems differ, but that they vary in their degree of gravity, and that they converge simultaneously in ways that are not reproduced in other public services (Lupton, 2013; Laprie, 2008; Greer et al., 2022). This section maintains that digital public health services occupy a structurally unique position in the landscape of digital public accountability, defined by the sensitivity of the involved data, the direct and potentially irreversible consequences of accountability failure for citizens, the critical necessity for operant systems and the important presence of both public and private actors with overlapping interests and obligations. It is therefore the convergence of these characteristics that creates the analytical relevance of the digital public health domain as a case within which to study DEG accountability challenges.

The first challenge relates to the nature of the data itself. Health data occupies a distinct position among sensitive personal information, uniquely intimate and precise, enabling detailed profiling of individuals. Research on re-identification has shown that anonymised health datasets can be reconstructed to identify individuals through combinations with auxiliary data sources, such as demographic records, geographic information, or other datasets, at rates that make anonymisation difficult to guarantee at scale (Sweeney, 2018; El Emam et al., 2011). Furthermore, re-identification of medical information is described as a task that does not require sophisticated expertise, as they are easily reversed (Sweeney, 2018; El Emam et al., 2011). The associated risks of re-identification can carry life-altering consequences, affecting employment, insurance, relationships and in the cases of particularly sensitive conditions, namely reproductive health, gender-affirming care, or psychiatric history, can expose individuals to discrimination, legal risks or personal danger (Sweeney, 2018; Smith, 2023; Lupton, 2019). Furthermore, since the risk of re-identification can occur at any time during the digitalisation of data, the obligations to ensure anonymity persist as long as the data is stored digitally.

Beyond the sensitivity of this data, the range of actors with interests in accessing it also raises concerns for accountability. Health records usually include information that is relevant to multiple actors, from the patient themselves to potentially insurance providers, employers, pharmaceutical researchers, law enforcement, and the medical staff (Winter & Davidson, 2019). Accordingly, the range of actors with an interest in accessing stored health data is particularly wide, the legal frameworks governing access are complex and variable, and the consequences of unauthorised access are among the most serious that digital governance can create. Additionally, as the Health Data Hub case demonstrated, foreign intelligence services operating under different legislation can claim access. In this regard, if health data is stored on infrastructure subject to foreign legalities, the accountability question of who has access and for what purposes cannot be answered within the legal frameworks of the state responsible for that data (Tambou & Pato, 2021).

Thirdly, one dimension concerns the operational criticality of the digital health system. This feature distinguishes this sector from other public service domains in terms of the consequences of a potential technical failure. For instance, if a digital system supporting clinical record management, diagnostics, prescriptions, or patient data fails, services can be delayed, which can lead to clinical harm. More precisely, failures in health IT systems are associated with delayed diagnoses, medical

errors and a disruption of care with direct effects for the patients (Greenhalgh et al., 2017). Laprie's (2008) concept of dependability as the property of a system that allows justified reliance on its service captures what is at stake; in the context of health, dependability is not a performance metric but a precondition for patient safety. For accountability, this operational dimension is important, as it concerns not only who is responsible when a system stores or exposes data incorrectly, but who is responsible when a system fails to be available when needed, and what mechanisms exist to ensure continuity, resilience and timely corrections.

Lastly, the governance of health involves one of the most institutionally complex intersections of public and private actors of any major public service sector. More precisely, hospitals, insurance companies, pharmaceutical actors, medical device manufacturers, software developers, cloud hosts, national regulatory institutions, and European supervisory authorities all have different relationships with the data stored within these health systems, as well as varying levels of obligations, and different accountability relationships to the concerned publics (Bilodeau & Potvin, 2016). This institutional density is not simply the many hands problem replicated at a large scale; it is the convergence, within a single domain, of data sensitivity, operational criticality, and institutional complexity, all simultaneously (Lupton, 2013; Laprie, 2008). It is this exact convergence that makes the digital health sector the domain in which the accountability challenges of DEG are most acute and most democratically consequential for citizens dependent on those services.

Considering this, the questions of how accountability is understood, represented and exercised in practice by those involved in digital health governance are analytically urgent. The gap between *de jure* and *de facto* accountability, identified by Papadopoulos (2023), is consequential as a structural feature of governance rather than an incidental failure. Examining this necessitates a framework able to identify not only the existence of formal mechanisms but also where and how accountability breaks down in practice, and it is precisely for this reasoning that Bovens' (2007a) relational framework, as Maggetti and Papadopoulos (2023) demonstrated. It is this gap, and the question of how it is produced and sustained through the understandings and representations of the actors, that the next section converts into the research questions guiding this thesis.

1.4 From Political Problem to Analytical Question

The previous sections have demonstrated that accountability is a structural condition upon which democratic governance depends on, that digitalisation has not just complicated accountability but transformed its operant conditions, and that digital health services represent the domain in which those transformations are most consequential. What has not yet been addressed is how accountability is understood by the actors who design, govern and scrutinise digital public services in practice.

Academic literature on digital governance and accountability has been oriented towards two types of inquiry. The first is institutional and legal, as it studies what accountability frameworks exist, what obligations they impose, and how effectively they are applied in practice (Lynskey, 2015; Veale & Zuiderveen Borgesius, 2021). The second is more technical and normative as it focuses on what accountability for digital systems should require, and proposes design criteria, regulatory standards or oversight mechanisms to meet those obligations (Yeung, 2018; Bannister & Connolly, 2011). While both of these lines of questioning are valuable, they share a joint limitation: they treat accountability from the outside, as a set of mechanisms to be evaluated against formal standards, rather than examining how it is understood from the inside by the officials who implement it, the civil society actors who scrutinise it, and the official documents that represent it.

This is important because, as Papadopoulos (2023) argues, formal accountability arrangements frequently function as empty shells, or *de jure* structures that satisfy the requirements of governance on paper while failing to produce *de facto* accountability in practice. Understanding why this gap exists and how it is sustained requires attention not only to what mechanisms are in place but also to how those involved understand what accountability demands, what counts as sufficient answerability, and where the boundaries of obligation lie. Where public officials and civil society hold different understandings of the requirements of accountability, that divergence may be considered a source of accountability failure, regardless of the implemented formal arrangements. Likewise, where official documents represent accountability in ways that do not align with the understandings of who is responsible for implementing them, formal mechanisms may be designed to satisfy scrutiny rather than to function as genuine spaces for answerability.

This gap in the literature is especially relevant in the digital health services, whereas previously established, the consequences of accountability failure are most direct and democratically consequential. Existing scholarship has also mapped the formal mechanisms through which accountability is structured in digitalised health governance; how this is understood, represented and exercised in practice by those involved remains underexplored. It is therefore, with this in mind, that this thesis adopts the Bovens (2007a) relational framework, which is elaborated on in Chapter 2. This thesis addresses that gap through the following research question: How is accountability understood and represented in a digitalised public health service by public officials, civil society actors, and institutional documents?

2. Accountability as an Analytical Concept: A Relational Framework

This chapter defines the conceptual framework applied throughout this thesis and used to analyse how accountability is understood within digitalised public services. The first section introduces Bovens' (2007a) conceptualisation of accountability as a social relation within which two roles are identified. The second section elaborates this dynamic further, introducing the details of each role, namely the actor and forum. The following section provides details of the three stages of the accountability relation: information, debate, and consequence, and the type of accountability that governs their expression. The final section contextualises the framework within the realm of digitalised public health services, considering its limitations and analytical boundaries for its application to this thesis's empirical context.

2.1 From Contested Concept to Analytical Tool

As the literature review in the previous chapter established, accountability possesses a central yet contested place in the study of public administration and democratic governance. Its conceptual expansion has direct consequences for empirical research: without a clear and bound definition, it becomes difficult to identify what accountability looks like in practice, who holds it, and who is held to it (Bovens, 2007a; Dubnick, 2002; Mulgan, 2000). In response, scholars have sought to move beyond umbrella definitions toward more analytically precise frameworks. Among these, the relational tradition offers the most robust framework for investigating how accountability is understood and enacted in public service delivery, precisely as it treats accountability as an action that occurs between parties, rather than an internal quality possessed or felt by an actor party (Bovens, 2007a; Mulgan, 2003).

To understand what accountability is as a relation, it must first be differentiated from what it is not, a virtue. Subsequently, as a virtue, accountability denotes a normative concept, whereby indicating a set of standards for the actions of actors calling for them to act transparently, to take responsibility for decisions, and to be answerable for their conduct (Bovens, 2010). In contrast, accountability as a mechanism indicates a structured social relation between identifiable parties, governed by

specific processes through which accounts are given, scrutinised, and acted upon. Moreover, Bovens (2007b) explained that while accountability as a virtue is easily understood, it is difficult to define operationally due to a lack of consensus about its standards, which may differ depending on an actor’s role, institutional context or political perspective. Hence, this study adopts accountability as a mechanism. The research question asks how accountability is understood and enacted, a formulation that presupposes observable relationships and practices rather than internal dispositions. Studying accountability as a virtue would require access to the normative commitments of individual actors; studying it as a mechanism requires identifying the structural conditions under which accounts are produced, interrogated, and consequenced. The latter trend has been adopted by scholars from Europe (Bovens, 2010).

Central to this conceptualisation is the definition of accountability as a social relation between two parties, the actor and the forum (Bovens, 2007a). The actor is an individual or organisation that is obliged, formally or informally, to give an account of its conduct, decisions, or performance. The forum is the individual, organisation, or institution to whom that account is owed, and who possesses the capacity to interrogate it, to pass judgment upon it and impose consequences. To note, both these roles will be further elaborated on in the next section. Bovens (2007a) illustrated this relational understanding into a set of constitutive criteria, summarised in Table 1, which together define the minimum conditions under which a relationship qualifies as an accountability relation (p. 452).

Table 1. *Accountability as a Social Relation*

1	There is a relationship between an actor and a forum
2	The actor is obliged
3	To explain and justify
4	Their conduct
5	The forum can pose questions
6	Pass judgement
7	The actor may face consequences

Note. From Bovens (2007a, p. 452).

Altogether, the elements in Table 1 constitute what Bovens (2007a) has named narrow accountability. That is to say that in order to qualify a social relation as a practice of accountability, there ought to be an actor capable and obliged to provide information about their conduct to a forum, which must include an explanation and justification. Here, Bovens (2007a) added that neither propaganda nor the provision of information and instructions to the general public suffice. The explanation provided must also be directed towards a specific forum and not distributed at random, as it is the specificity of the addressee and their capacity to respond that transforms information-sharing into accountability. Equally important is the obligatory nature of the exchange, as the actor must feel obliged to come forward and justify their actions, instead of simply being at liberty to do so. The forum, as well, must possess the opportunity to debate and provide judgement. Lastly, there must be an optional imposition of sanctions or rewards by the forum via formal or informal channels. Consequently, the absence of any criterion will negatively affect the relation of accountability, and the systematic absence of multiple criteria may produce a condition of profound accountability deficiency, the nature and implications of which this thesis will examine empirically.

2.2 Who Answers? Who Judges?

The identification of the actor and the forum is foundational to any applications of Bovens' (2007a) framework, because the nature and quality of the accountability relation is determined by who occupies each role and what capacities they bring to it. This section elaborates on both parties, maps the typological variations through which they appear in public administration, and identifies the directional axes along which accountability obligations flow.

The actor is not defined by inherent characteristics but rather by their positional obligation within the relationship, as they are the party that must explain and justify their conduct (Mulgan, 2003). Schillemans and Busuioc (2014) further nuance this by observing that public sector actors frequently operate as stewards rather than self-interested agents, suggesting that the obligation to account may be shaped by positional duty, by institutional mission and by professional norms. In traditional bureaucratic settings, the identification of the accountable actor is relatively traceable;

authority flows through fixed hierarchies, and the official body responsible for a decision can, in principle, be named (Białyżyt, 2017).

This understanding has important implications for how accountability obligations are attributed. Mulgan (2003) observed that when the actor is a collective or institutional entity rather than an individual, the obligation to account becomes structurally scattered, accountability is shared across roles and levels of authority, making it difficult to identify who precisely must answer and for what. In relation to this, the question of who, specifically, should be held accountable is raised. For Mulgan (2003), accountability follows responsibility in the sense that those performing a particular action ought to be those accountable for said action. However, whether that may be an individual, a group or an institution remains a fundamental issue related to governmental structures. Bovens (2007a) acknowledged this complexity, noting that in modern public administration the actor is frequently an organisation whose internal decision-making processes are opaque even to those within it, complicating the production of legible accounts. In public service delivery specifically, accountability obligations are rarely concentrated in a single identifiable agent but distributed across multiple institutional actors, each carrying partial responsibility for conduct and its justification (Strøm, 2000; Bovens, Schillemans & Hart, 2008). This distribution creates the precondition for the many-hands problem established in Chapter 1.

With regards to the second role, the forum is the one that may demand information, pose questions, evaluate conduct and when appropriate, impose consequences (Bovens, 2007a). The forum must possess both the formal right and practical capacity to perform these functions; a forum lacking genuine evaluative or sanctioning power produces a relationship that is structurally present but substantively hollow (Bovens, 2007a). This capacity requirement is corroborated by Schedler (1999), whose distinction between answerability and enforcement maps directly onto the forum's dual obligation to both evaluate and act. Przeworski, Stokes & Manin (1999) argued that effective forums must combine informational capacity, the ability to evaluate an account, with sanctioning capacity, the ability to act upon it.

Moreover, according to Bovens (2007a), relational accountability, as introduced above, still remains too broad. Therefore, to further narrow this concept, four questions were formulated to define more precisely the actor(s) and the forum(s); to whom account is rendered, who should render account, what account should be rendered, and why the actor should feel compelled to

render account. (Bovens, 2007a, p. 454). Prior to delving into these dimensions and their related categories, the following table provides a summary for their clarification.

Table 2. *Types of Accountability*

Dimension	Types
Nature of the actor	Corporate; Hierarchical; Collective; Individual
Nature of the forum	Political; Legal; Administrative; Professional; Social
Nature of the conduct	Financial; Procedural; Product
Nature of the obligation	Vertical; Diagonal; Horizontal

Note. Adapted Bovens (2007a, p. 461)

In response to the first question that yields a classification based on the type of forum, the problem of many eyes is raised. The issue here is that depending on the forum, they may demand different kinds of information and pass different judgements (Bovens, 2007a). Consequently, Bovens (2007a) speaks of political accountability, legal accountability, administrative accountability, professional and social accountability. More precisely, political forums may refer to parliaments, elected bodies and now, increasingly, the media, while legal forums include courts, such as the Court of First Instance or the European Court of Justice. Administrative forums, also described as quasi-legal forums, include ombudsmen, audit bodies and independent supervisory authorities. While professional forums may include general managers and social accountability, such as charities and interest groups, among others. Social accountability refers to clients, citizens, and civil society organisations, which emerged as accountability forums in response to declining public trust in government and a broader shift in many Western democracies toward more direct and explicit accountability relations between public agencies and the publics they serve (McCandless, 2001, cited in Bovens, 2010). Examples of this trend include public reporting mechanisms, citizen and stakeholder panels, and external reviews.

For the second question, which is more difficult to answer in the context of public organisations, Bovens (2007a) proposed the following categories: corporate accountability, hierarchical accountability, collective accountability and individual accountability. For corporate

accountability, the actor is understood as the public organisation and is collectively held to account for their conduct. Hierarchical accountability posits accountability at the top of the organisational pyramid. In public administration, this would be a minister held responsible for their ministry, or a commissioner or an agency director on behalf of their institution. In the case of collective accountability, all members of an organisation, by virtue of their membership, may be held to account. However, Bovens (2007a) warns that this approach faces moral and legal issues, as it fails to account for meaningful differences in culpability. Oppositely, individual accountability calls for each official to be proportionately held to account for their personal conduct.

The question of what account should be rendered concerns the aspect of the conduct for which justification is owed, and Bovens (2007a) identified multiple types. For legal accountability, the legality of the actor's behaviour may be examined and questioned, while for financial accountability, the focus lies on the financial property of the audit. Political and administrative accountability are less straightforward and encompass multiple aspects. In this sense, an audit may encompass financial accountability, legal accountability, or questions of policy efficiency within an organisation. Finally, another distinction relates to accountability for the process or accountability for the content or final product.

The final question of why the actor may feel compelled to render an account denotes a classification based on the nature of the obligation, which sheds light on the direction along which accountability may operate, as demonstrated by Figure 1. Vertical accountability refers to relations in which accountability is rendered upwardly, between unequal parties, such as the government and citizens (Bovens, 2007; Lührmann et al, 2020). This direction of accountability has long dominated public accountability in Western democracies (Bovens, 2007). Horizontal accountability denotes a relation among somewhat equal parties, for example, between different branches of the government (O'Donnell, 1998 as cited in Lührmann et al., 2020). Finally, diagonal accountability represents the extent to which actors outside of formal political institutions may hold the government accountable (Lührmann et al., 2020). As shown in Figure 1, this is the only direction of accountability that does not hold a direct link to the actor, as their role is primarily aimed at informing or accompanying the forums, who have horizontal or vertical avenues, to put direct pressure on the actor. In any case, according to Bovens (2007) and Schillemans (2008), the latter two forms have since emerged during the past decade as a promising solution for vertical

models due to the growth in size and complexity of modern public administrations, leaving current systems of governance fragmented.

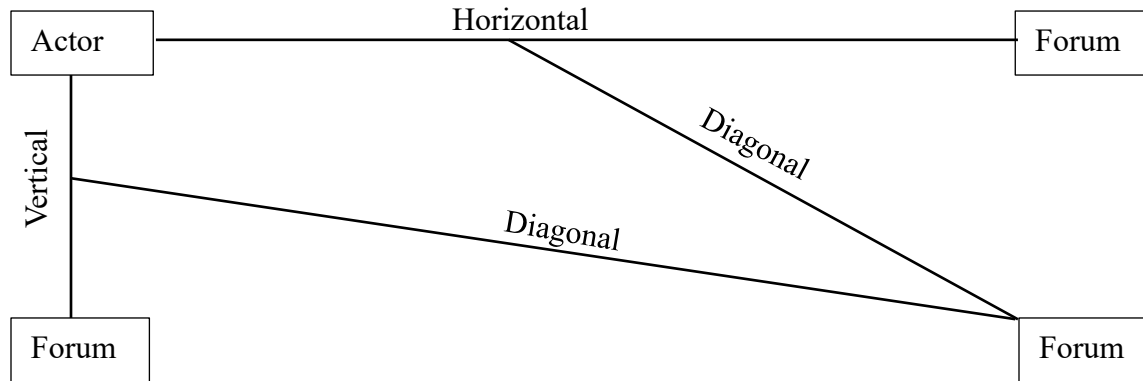


Figure 1. *Accountability Relation Directionality*

Note. From Lührmann et al. (2020, p. 813).

Having established the constituent parties of the accountability relation, the typology of parties through which it operates, and the directional axes along which accountability flows, the following section turns to the sequential stages through which this relation is enacted in practice.

2.3 How Accountability Unfolds: Information, Debate, and Consequence

This section elaborates the sequential stages through which this relation is enacted in practice, as well as the nature of the obligation that compels actors to render account, which were first introduced by Bovens (2007a) into an analytical framework, stating that accountability occurs through an initial information stage, followed by a debate and concluded by a consequence stage, illustrated in Figure 2. However, the argument that accountability constitutes a process rather than a singular act has been noted in earlier scholarship. Schedler (1999) initially argued that accountability is a two-dimensional concept which incorporates answerability and enforcement. Additionally, Mulgan (2003) described accountability as involving the giving of accounts, their review and potential atonements.

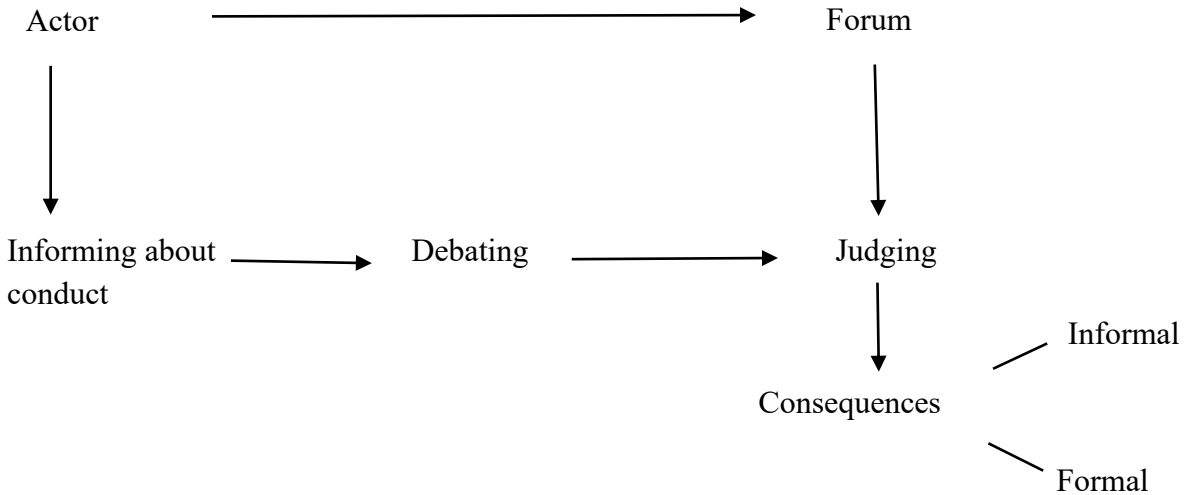


Figure 2. *The Three Stages of Accountability as a Social Relation*

Note. From Bovens (2007, p. 454)

The first stage is information, where the actor provides the forum with data, explanations, and justifications concerning its conduct and decisions. For this stage to function, the account rendered must be meaningful and be directly aimed at the concerned forum (Bovens, 2007a). This means that the provision of general information to the public, promotional material and propaganda does not qualify as an adequate account. The account must be sufficiently legible for the forum to evaluate it, which requires its production to be rendered both accessible and comprehensible to the receiving forum. The second is debate, as the forum interrogates the account, questions its adequacy, and challenges the actor based on the information received (Bovens, 2007a). Schillemans (2011) observed that this stage is often the weakest in practice, as forums can lack the institutional resources or political incentive to engage with the accounts they receive, producing shallow accountability. The final and third stage is consequences, during which the forum passes judgment on the account and, where appropriate, imposes sanctions, demands corrections, or confers legitimacy (Bovens, 2007a). Schedler (1999) identified this as the enforcement dimension of accountability, stating that without credible consequences, the previous stages are reduced to a performative exercise.

These three stages are sequential and cumulative; if the information stage is absent or inadequate, if the actor fails to provide a legible account, or if the account is structured in ways that preclude meaningful scrutiny, then debate cannot function effectively. If debate is foreclosed, whether by institutional design, power asymmetry, or opacity, then the imposition of consequences becomes arbitrary or impossible. Accountability, in Bovens' (2007a) framework, is therefore not a binary condition but a process that can break down at any of its three stages, with cascading effects on the stages that follow. This understanding is particularly important for this thesis, which is concerned precisely with identifying where and how this process breaks down in the context of digitalised public health services.

Building up on this, Brandsma and Schillemans (2012) extended this three-stage framework through the creation of the accountability cube, a three-dimensional model mapping accountability relations across the identity of the actor, the identity of the forum and the stage of the accountability process that is operative. Their contribution is analytically significant as it draws focus to the fact that each stage does not function in a uniform manner; it varies according to the specific actor-forum configuration in which it is present. For example, a social forum may possess the capacity to demand information but lack the formal authority to impose consequences, producing a relation in which the first stage functions while the last is structurally weak. This concept adds depth to Bovens' sequential model by demonstrating that accountability relations are both shaped by who the parties are and at which stage their interaction takes place.

This complexity is further intensified in public service contexts. Romzek and Dubnick (1987) observed that public organisations face a structural accountability challenge that private organisations do not, as they are simultaneously subject to multiple competing accountability demands from different principals, political superiors, legal authorities, professional communities, and citizens, each of which may define the obligations of accountability differently and prioritise different criteria of performance. This multiplicity of demand does not merely complicate the actor's task but introduces structural ambiguity at each stage of the process: which forum's request for information takes precedence, whose interrogation constitutes legitimate debate, and whose judgment carries consequential weight may all be simultaneously contested.

Having elaborated the three stages through which the accountability relation operates, the types of accountability that shape this relation, and the directional axes along which obligations flow, the

following section contextualises Bovens' framework within the specific demands of digitalised public service delivery, addressing its analytical boundaries and the adaptations required for its application to this study's empirical context.

2.4 The Relational Framework Under Digital Conditions

Having introduced the central conceptual framework of this thesis, this section will acknowledge the framework's strengths and limitations in the study of accountability in digitalised public services. The arguments that follow shed light on how Bovens' (2007a) model enables and constrains the analysis undertaken in this thesis and consequently shapes the decisions of the methodological chapter.

Regarding the strengths of Bovens (2007a) framework it is found in its analytically precise structuring of accountability as a dynamic relationship between actor, forum and process. The tripartite formation of information, debate, and consequence has proven operationalizable and has since been increasingly adaptable across empirical studies of public administration (Schillemans, 2011). This balance establishes a foundation for assessing the framework's applicability to digital governance.

However, it should be noted that this framework was not initially designed for the digital context. Its assumptions reflect traditional bureaucratic settings where actor-forum relationships are institutionally visible, information flows are structured, and forums possess clear sanction capacity. Digitalisation challenges all three assumptions. Bovens and Zouridis (2002) themselves identified this design tension, showing how system-level bureaucracies relocate discretion from human actors to technological systems, a condition that demands the extension of this framework rather than its rejection.

Digitalisation has also fragmented the actor landscape in public service delivery. Accountability, previously, followed a relatively stable principal-agent chain, and now it traverses distributed networks of public, private and digital actors. This actor identification problem has caused obligations to account to become increasingly ambiguous (Koene et al., 2019).

Furthermore, as public services have been digitalised, it has created a digital case around public officials. By this, it is understood that prior to the digitalisation of a particular service, a street-level bureaucrat would have carried out the service and would have been able to express a degree of discretion (Jorna & Wagenaar, 2007; Larsen et al., 2025). However, some digitalisation practices, such as the use of templates or the removal of the street-level bureaucrat, negatively impact discretion, usually as algorithms may struggle to adapt to the complexities of citizens (Ball et al., 2023).

An additional challenge that arises relates to forum capacity. In his work, Bovens (2007a) assumed that forums can evaluate and sanction meaningfully, but digitalisation introduces steep knowledge asymmetries. Civil society forums, for example, may possess sectoral expertise but lack technical expertise, thus limiting their ability to interrogate digital systems effectively. Busuoiu (2021) and Wieringa (2020) highlighted how these gaps create accountability deficits precisely as technological complexity rises. As well, even if forums remain formally active, they may suffer from ‘forum drift,’ as they may fail to act upon their evaluative duties. In digital contexts, the complexity in understanding what is being audited magnifies this drift, raising the cost of evaluative duties and reducing the likelihood of meaningful engagement.

Finally, Bovens' mechanism-based framework is not the only available approach to the study of accountability in public administration. Skladzien (2006) have approached accountability through the lens of transparency, emphasising the conditions under which institutional conduct becomes visible to external scrutiny. Schedler (1999) offers a more politically oriented framework centred on the answerability-enforcement distinction. Romzek and Dubnick (1987) provide a typological approach that maps accountability demands onto organisational structures. Although each of these frameworks captures important dimensions of accountability in public services, Bovens is preferred in this study for three reasons.

First, his relational definition, accountability as a structured social relation between actor and forum, maps directly onto the empirical focus of this research, which examines the relationship between public officials and civil society organisations in the implementation of a digitalised public health service. Second, the three-mechanism framework is operationalizable through qualitative interview data: the presence or absence of information, debate, and consequences can be traced in the accounts that interviewees give of their institutional relationships and practices.

Third, Bovens' framework has been extensively applied in public administration research on digitalised and algorithmically supported services (Busuioc, 2021; Schillemans, 2011), making the findings of this study commensurable with an established body of empirical work.

Building on the literature above, this thesis puts forth two expectations prior. Firstly, accountability deficiencies will be most prominent in the information stage. The reasoning being that this is the stage at which the directed production of legible accounts is most vulnerable to the opacity and technical asymmetric characteristics of digitalised governance. Secondly, the complexity of the French administration, with distributed accountability across multiple overlapping institutions, will intensify these deficiencies and complicate the ability of the forum to identify and address the relevant actor or actors.

Finally, this thesis aims to critically reflect on the analytical purchase of Bovens' framework in the context of a digitalised public health service, in order to identify where the categories illuminate the case and where the digitalised context introduces dynamics that the framework does not capture.

3. Methodology

This chapter outlines the methodological approach adopted to examine how accountability relations are understood and enacted in digitalised public services, with a focus on interactions mediated by a national digital health platform. It presents the research design, the case selection, followed by the details of the data collection and sampling strategy. The third section elaborates on the chosen method of analysis and introduces the operationalisation of the framework. Lastly, limitations, ethical considerations and researcher positionality are discussed, given that the data collection involves human participation, personal data and direct involvement with the researcher.

3.1 Research Design

This thesis adopts a theory-driven approach informed by critical realism. Critical realism distinguishes between the real world and the observable world, arguing that underlying unobservable structures generate observable events and that our knowledge is shaped by perception, theory and experience (Sayer, 2000). This approach is useful for examining accountability as it allows for the concept to be viewed as socially real and contextually mediated, thus accountability exists as a structured relation independently of how actors describe it, yet can only be investigated through their descriptions and the institutional practices in which it is embedded. Fundamentally, critical realism does not oblige the research to choose between treating the concept as an objective structure and as a subjective experience; it is both, and the relationship between the two is examined through this thesis.

Within this paradigm, accountability is understood as a structured social relation between actor and forum, as set out in Bovens' (2007a) framework and elaborated in Chapter 2. The framework offers the analytical structure for this thesis's analysis; the three sequential stages, namely information, debate, and consequence, are operationalised as the core coding categories because they decompose the accountability relation into constitutive moments, making it possible to identify where exactly differences in accountability understandings lie. This operationalisation is

thus theoretically motivated. Each stage corresponds to distinct questions; for example, the information stage asks if the actor produces a legible account and if it is clearly directed to a forum. The questions for the debate stage relate to the extent to which the forum can engage with the account produced during the first stage. The consequence stage asks if the debate produces consequences for the actor and the service. Each of these questions also guided how the understandings and perceptions of accountability were extracted from the findings. Overall, this three-staged structure provides the coding logic and the analytical direction of Chapter 4.

From this, it can be assumed that the logic of inquiry is deductive. This means that this thesis began from the framework, namely Bovens (2007a), to guide the empirical analysis. Okoli (2021), in his work defining this method, explains that the aim of this method is to test the chosen theory, verifying its ability to be validated or contradicted. However, this thesis does not aim to claim such an ambitious objective, due to its scope, and already accounts for the framework's limitation in Chapter 2. Rather, the aim is to capture the perceptions and understandings of accountability in the context of MES, France's national digital health data platform. Accordingly, an open emergent category was maintained throughout the analysis to capture perspectives that fell outside the framework's predefined structure, making the overall methodology of investigation both deductive and inductive (Okoli, 2021).

To fully encapsulate the relation aspect of accountability that this thesis adopts, a clear distinction is maintained throughout the analysis between actor positions and forum positions. As explained in the previous chapter, the Bovens (2007a) model defines accountability as a relation between an actor and a forum; the former must render an account, and the latter evaluates and sanctions it. Assessing only one side of this relation could produce an incomplete picture; official documents alone would only describe formal accountability without capturing how forums perceive it, while forums alone risk ignoring how actors themselves understand their obligations. These differences constitute the *de jure* and *de facto* gap Papadopoulos (2023) identifies as a central challenge to accountability in practice.

Finally, to capture the full range of accountability understandings this thesis examines, an appropriate research design is necessary. Accordingly, this thesis uses a single case study design to analyse a complex and context-dependent relation in depth. While the case study occupies a contested position in political science studies, primarily due to its lack of generalisability, it yields

significant advantages (Gerring, 2004). As Morgan (2012) argues, this research design permits a full analysis of the influencing factors and draws on a plurality of observations to substantiate its interpretations. This method thus allows for the in-depth research necessary for the research question formulated in Chapter 1, all while remaining contextually conscious. Moreover, this study already brings together different sources to examine varied understandings from actors and forums, adding another case or moving to a small-N design would not be appropriate (Gerring, 2007). The selected case study and the reasoning for its selection are addressed in the following section.

3.2 Case Selection: Mon Espace Santé

As stated above, digital health services represent the domain in which accountability challenges are most visible and the EU the most advanced regulatory context in which to examine them (Bradford, 2012). In this context, France emerges as a significant national case, combining an established digital health infrastructure with a recently formulated strategy aimed at positioning itself as the EU leader in this domain (Direction générale des Entreprises, 2024) and has already confronted jurisdictional accountability tensions in the Health Data Hub case to ensure the guarantee of GDPR compliance in data hosting infrastructures (Conseil d'État, 2021). Within France, Mon Espace Santé (MES) serves as the most analytically relevant case, as a platform at which sovereign digital health strategy meets daily governance practice.

MES was launched in January 2022, following a pilot phase in two French departments in late 2021 (Agence du Numérique en Santé, 2022). The purpose of the application is designed to serve as a digital health record for all insured patients, including dedicated spaces for personal details such as allergies or family history, updates on vital data on blood pressure or sugar level, and a vaccination record (Agence du Numérique en Santé, 2026). A secure health messaging service is available for communications between patients and healthcare professionals, and a health agenda with reminders for vaccinations or appointments (Mon Médecin Traitant, 2026). The security and protection of the personal data is guaranteed by the Health Ministry and the French National Health Insurance Fund, under the supervision of the National Commission for Information Technology and Civil Liberties [FR: Commission nationale de l'informatique et des libertés] (Agence du Numérique en Santé, 2026). The data is also hosted in France, and patients retain control over their

data, are its owners and decide which healthcare professionals have access to the specific documents. Patients are notified when a document is uploaded, modified or accessed via an activity log (Agence du Numérique en Santé, 2026).

Its deployment was structured around an opt-out logic; all French citizens were automatically enrolled unless they actively chose to deactivate their account (Bernard, 2026). To date, nearly 97% of the population has a MES account with 24 million citizen activated accounts (Assurance Maladie, 2026). Activation rates are highest among 25–69-year-olds, with an activation rate of 40%, however, usage is expected to increase among the elderly as they will be able to grant access to carers or relatives, once legislation allowing this has been implemented. More than 420 million documents have been uploaded in 2025 by healthcare professionals, meaning that the service has now reached a sufficient level of maturity to both meet the expectations of stakeholders and to improve the quality of patient care (Assurance Maladie, 2026).

A note here is drawn to this thesis timeframe. While MES was only launched in 2022, the analytical framework began in 2019 with the legislation creating the platform's legal basis. The end point is determined by the completion of primary data, namely the semi-structured interviews conducted in 2026. Over these seven years, implementing decrees, official communications, and consultation reports were published and thus constitute the documentary corpus of the data collection.

Finally, two alternative platforms were considered. Firstly, Ameli serves as an administrative portal enabling citizens to consult reimbursement histories, download attestations, and manage basic social insurance procedures. This platform operates under the National Health Insurance Fund [FR: Caisse Nationale d'Assurance Maladie] and its digitalisation was introduced in 2007 (Assurance Maladie, 2026). It was rejected as a case study due to the risk of capturing an already settled accountability arrangement. Secondly, Doctolib, introduced in 2013, is a private platform facilitating the organisation of medical appointments (*Doctolib : Prenez Rendez-vous En Ligne Chez Un Soignant*, n.d.). It was rejected as it is privately owned, and this thesis focuses on the relation of accountability between citizens and their government.

3.3 Principles of Data Collection

This thesis relies on two forms of primary data: document sources and semi-structured interviews. The purpose of relying on two distinct sources of evidence is to enhance the rigour of this thesis, reduce potential research bias and ensure the complexities of accountability as a relation are fully captured (Houghton et al., 2017). The details of each for both sources of data are detailed in the following subsections, 3.3.1 Document Sources and 3.3.2 Semi-Structured Interviews.

3.3.1 Document Sources

Document sources form the first part of the primary data used in this thesis. They were selected to provide contextual and institutional background for the case study and to complement the data collected during the interviews. The specific documents consulted are illustrated by Table 3, with a more precise list available in Appendix 1, and include the first law introducing MES in 2019, its implementing decree that came three years after, and updates mandated in 2024. Later amendments were excluded from the selection as they did not add to the analytical focus of this study. Two official policies or explanatory documents communicated by the French state to explain the purpose of MES were also included. Finally, an oversight document published by the Court of Auditors [FR: Cours des Comptes] who evaluated MES and a paper detailing a study by the French Ministry of Health that consulted citizens on their experiences of MES.

Table 3. Selected Document Sources

Document	Date	Type	Analytical Purpose
Law 2019-774	24 July 2019	Enabling legislation	Establishes the legal basis for the digital health framework and formally defines the State's obligations regarding the MES
Decree 2021-1048	4 August 2021	Implementing decree	Specifies the procedures for implementing the MES (i.e. registration process & implementation details)
Decree 2024-468	24 Mai 2024	Regulatory update	Updates the legal and functional use of MES, including personalised prevention messages and user information rights
Press Release	28 May 2024	Official public communication	How the State publicly presents the MES to citizens and defines its purpose, use and legitimacy
Audit of MES by Court of Auditors	29 May 2024	Evaluation report	Assesses the implementation of the MES and identifies its strengths, weaknesses and governance issues
Consultation Report	10 June 2025	Evaluation report	How the State frames sensitive user-facing features and whether deliberation or user involvement is built into the platform
Digital Health Policy of MES	17 November 2025	Official guidance document	Provides current public presentation of the MES and its role in the digital health system

Note. Author's own compilation.

The selection process was limited to the timeframe 2019-2025 to fully capture the development of MES, from its legal foundation to its implementation and to its most recent regulatory changes and evaluations. Documents were collected from official sources, including the Légifrance, the public service for the dissemination of the law, the MES website, the Ministry of Health website, press releases, and oversight documents. Two sources were dismissed, the first relating to information about the Ambassadors of MES and the second on the work of a citizens committee on MES. The reason being that their official links have been deleted, however, the former was cited in half of the interviews. In addition, it should be noted that while all documents originate from within the state apparatus, except of the Court of Auditors audit (2024), and could be classified as actor positions. They are ultimately not treated as actor or forum sources in this analysis because they represent a third analytical category which represents the official and institutional register of accountability required by law. Unlike the interview data, introduced next, these documents reflect what the state mandates and publicly communicates, independent of how it is understood or

experienced. The comparison between these three categories, official documents, forums and actor perceptions, is what allows the de jure and de facto gap to also be assessed.

The website *vie-publique*, owned by the French state, was consulted to avoid misunderstandings in legal documentation, as it offers explanations of laws and decrees, and the researcher is not a legal expert. All documents were analysed in French, and quotations that are included in the findings section were translated by the researcher.

3.3.2 Semi-Structured Interviews

The second source of data was semi-structured interviews. Here, two groups were distinguished; the actors and the forums. Actor interviewees were identified on the basis of their formal involvement in the governance, delivery or accessibility of MES, following a purposive sampling logic aimed at covering the full chain of accountability, from the health ministry responsible to national delegates to street-level bureaucrats directly involved with its users (Tajik et al., 2024). Forums were selected based on their documented engagement in digital inclusion, usually found on their websites. This is a recognised sector of French civil society whose organisations support vulnerable and digitally excluded populations in accessing digital public services, and who position themselves as forums capable of evaluating MES on behalf of the citizen-principals the service is designed to serve. The detailed list of the interviews can be found in Table 4, while the organisational profiles of participating institutions are available in Appendix 2. To note, two interviews, specifically 6 and 10, come from the same organisation, however, due to the size of their organisation and the fact that both work in different sectors, namely one trains healthcare professionals to use MES, while the other works in digital inclusion around the Parisian suburb.

Table 4. *List of Anonymised Interviews*

Interview	Role Distribution	Date	Location	Recording Method
1	Forum	18 March 2026	Online on Google Meets	Memo App & Participant recording
2	Forum	19 March 2026	Online on Google Meets	Memo App
3	Forum	23 March 2026	Online on Google Meets	Memo App
4	Actor	24 March 2026	In Person	Memo App
5	Actor	25 March 2026	In Person	Handwritten notes
6	Forum	27 March 2026	Online on Google Meets	Memo App
7	Actor	2 April 2026	In Person	Memo App
8	Actor	2 April 2026	Online on Google Meets	Memo App
9	Forum	7 April 2026	Online on Google Meets	Memo App
10	Forum	21 April 2026	Online on Google Meets	Memo App

Note. Author’s own compilation.

Interviewees were contacted via email, as seen in Appendix 3, although slight changes in tone were made depending on the nature of the organisation. Up to thirty-eight individuals were contacted; twenty were actors, and eighteen were forums. Only ten individuals responded, four actors and six forums, as demonstrated in Table 4, and they were interviewed, either online or in person. To note, four of the interviewees were snowballed, as their contacts were shared by the first group interviewed (Gierczyk et al., 2023). Furthermore, all interviews were conducted in French, as the native language of those interviewed, and nine interviews were recorded using the application Voice Memos on the researcher’s iPhone. These recordings were transcribed in the language of the interview, in order to preserve linguistic precision and avoid translation losses at the transcription stage. One interview, number five, was not recorded as requested by the interviewee, and therefore, extensive notes were made during the exchange. To note, this may impact the level of detail obtained. Another interview, number 8, wanted to confirm and reformulate their quotes and was allowed to do so via mail. Interview 1 also wanted to record the exchange from their computer and was allowed to do so. They then sent the recording to the researcher, who used it to test the transcription method and ultimately chose the Memo application for its clearer audio. All transcripts were deleted following the writing of their transcripts and then sent to the interviewee for their final review. Finally, all interviewees were sent an information sheet and consent form,

shown in Appendix 4. And although they were offered the opportunity to select their wished degree of anonymity, following a discussion between the researcher and supervisor, it was decided that all would be anonymised. Therefore, each interview was attributed a number from one to ten based on when the interviews took place.

The interviews were semi-structured, comprising of a mix of closed and open-ended questions with a monitored order (Karatsareas, 2022). Questions were prepared in advance and according to the three stages of this thesis's framework (i.e. information, debate, consequence), however, the researcher allowed for the interviewee to guide the exchange should they have experiences that fall outside of the predefined framework categories. The guides were also adjusted for each participant in order to reflect their roles in governance, implementation, or advocacy, while maintaining a shared core structure. An example of some of the questions posed is provided in Appendix 5. Here, it should be mentioned that the first interview was wrongly categorised as an actor, however, they described themselves as a forum-like organisation. This mistake did not affect the discussion nor the findings due to the nature of the questions.

Finally, interviews were terminated once data saturation was reached, the point at which the ability to obtain new information has been reached (Fusch & Ness, 2015). To verify that saturation had been actually achieved, a final interview was conducted approximately two weeks after the preceding one to allow time for a preliminary review of the data before confirming the validity of the samples.

3.4 Method of Analysis and Operationalisation

Framework analysis is selected to capture the understandings of accountability found in the data, as this is a structured qualitative method suited to theory-driven inquiry (Gale et al., 2013). This approach is also consistent with the deductive and inductive logic of this thesis, as it allows for theoretical propositions to guide the analytical categories, while provision is made for inductive coding of material that exceeds or complicates the framework. While this framework is mainly designed for semi-structure interview data, Gale and colleagues (2013) explicitly state that it can

be adapted to textual data. This methodology consists of seven stages, which this research abides to, and are elaborated on as follows.

The first stage concerns the transcription of the audios verbatim (Gale et al., 2013). Here, all interviews were transcribed using noScribe. The documentary sources were standardised into PDF format to ensure their readability and storage. The second stage is the familiarisation with transcripts and document data through close reading.

The third stage entailed the coding, whereby segments of text were labelled according to their substantive content. This involved the use of MaxQDA, where the data was uploaded and coded. The unit of coding was sentences, though passages of two to three sentences were also coded where meaning could not be captured in isolation. Both automatic coding and manual coding were done for each source. The deductive codes were theory driven and thus derived from the conditions each stage of Bovens' (2007a) framework requires to function; the information stage requires that information exists, is directed to the right forum, is legible and reaches citizens; the debate stage requires that forums can access actors, that input is weighted fairly, and the feedback is institutionalised; and the consequence stage requires that responsibility is clearly located, that corrections are verified and that enforcement mechanisms function. These conditions produced the sub-codes for each stage. The emergent category was developed inductively across two coding rounds: the first round flagged remarks that participants presented as crucial elements of accountability but could not be included in the three stages.

The fourth stage is the development of a working analytical framework, which involves grouping the codes together into categories with clearly defined boundaries. This involved the second round of coding to confirm if these remarks were shared among participants, and if so, they became the core characteristics of this dimension. It should be mentioned that excerpts could be double-coded as a passage could evidence two stages, for example, a consequence that is itself the product of a lack of information, requiring a theoretically grounded judgement about primary categorisation. An additional evaluative dimension was also coded to capture whether speakers or documents assessed the accountability arrangements as adequate, inadequate or ambivalent. This allowed the analysis to differentiate between how actors and forums evaluate the feature of accountability they are describing. Excerpts could be also double coded as it may represent a consequence that could result from a lack of information, for example. Therefore, the researcher had to strategically select

under which category these different passages be attributed. Furthermore, the specific codes and their sub-codes are available in Appendix 6. This Appendix also provides example quotes that come from the data.

It should be briefly mentioned that while the accountability literature presented in Chapter 2 distinguishes between vertical accountability, operating between citizens and elected officials, and horizontal accountability, operating between institutional actors, this analysis does not code that difference. The Bovens' (2007a) framework, applied here, operated at the level of the actor-forum relation, regardless of its direction, and the MES case involves accountability relations that cut across these dimensions. Coding for vertical and horizontal accountability would have imposed a conceptual boundary that the empirical material did not naturally reproduce and fell outside of the scope of the analysis.

The next stage involved applying the analytical framework to the data. Here, Gale and colleagues (2013) advise that numbers or abbreviations be assigned to each code for clarity. Thus, codes were numbered with information being stage 1, with its sub-codes being numbered 1.1 to 1.5 and so forth. Stage six involves the charting of data into the framework matrix. This step requires that a balance between reducing data and retaining its original meanings be maintained (Gale et al., 2013). To note, the researcher has decided to not share the framework matrix as it was only used to organise findings and the codebook in Appendix 5 provides a more legible understanding of the coded data. The last step involves the interpretation of the data which involves identifying patterns, interrogating the theoretical concepts and mapping connections between the categories, in the sense that they may affect one another.

3.5 Ethical Considerations, Researcher Positionality & Limitations

Ethical considerations presented a central concern to this research, especially as human participation was key to data collection. As such, privacy and the protection of the personal data of participants was deeply considered (Mirza et al., 2023). For this thesis, participants were contacted via email, and once they expressed interest in participation, they were sent the information sheet and consent form. This form, which can be found in Appendix 4, offered a short

explanation of the study, an overview of their rights and a table in which they could choose their wished degree of anonymity.

Regarding the recording of the interviews, participants were verbally informed, prior to the beginning of each interview and before any substantive questions were posed, that the researcher wished to record the exchange using the Voice Memo application. This application is only capable of capturing audio, and no visual information. Consent to record was requested explicitly and framed as optional: participants were informed that the research would be actively taking handwritten notes throughout the exchange, regardless of their preference, so that declining to be recorded would have no bearing on the quality or conduct of the interview. This framing was intended to ensure that consent was active and uncoerced rather than assumed.

Once the data collection for the interviews was complete, all interviews were transcribed and sent back to the participants, while the recordings were deleted. This is important feature of ethics in qualitative research which helps prevent misinterpretations or falsifications of data (Mirza et al., 2023). The thesis was also designed to avoid the collection of personal or sensitive health data; interviews focus on governance, accountability mechanisms, and institutional practices rather than on individual medical information or specific patient cases. Documentary sources are restricted to publicly available materials.

Another important ethical consideration related to the respect of the participants. Therefore, this research maintained a non-discriminatory approach between the participants and the researcher (Mirza et al., 2023). Furthermore, as is customary in the French language, all participants were addressed as You [FR: vous], unless they expressed a wish to be addressed as You [FR: tu]. The latter, known as the use of the informal you [FR; tutoiement], denotes a social proximity, and by default the exchanges with those participants were more ‘relaxed.’

The researcher’s positionality must also be considered as it shaped the research process and interpretation of findings. Firstly, the researcher is positioned outside of the organisations studied but is familiar with debates on digital governance and accountability. At the same time, the researcher is a French national and, as a recipient of MES, occupies a partial insider position, not within the institutions governing the platform, but within the population it governs. This intermediate positionality between insider and outsider carries analytical advantages and obligations, such as the facilitation of a degree of critical distance from institutional logics while

requiring deliberate effort to understand those logics and their own terms, especially when participants' accounts diverged from the theoretical framework.

Finally, the research is subject to several limitations. Firstly, as a single-case study, the findings cannot be statistically generalised to all digital public services (Polit & Beck, 2010), and the conclusions are instead framed as analytically relevant to broader debates on accountability in digital governance. Related to this, the case study is from France, and data was thus collected in French, however, the term accountability does not exist in French (Pesqueux, 2020; Parsa, 2023) even though accountability finds its roots in Old French and Latin (Dubnick, 2012). To remedy this, the researcher relied on the term responsibility [FR: responsabilité] but explained at the beginning of the interview how responsibility was studied in this thesis and thus why the questions posed were divided into three distinct categories (i.e. information, debate, and consequence). This approach is not uniform among Francophone scholars, some employ the term responsibility in lieu of accountability (Pesqueux, 2020; Bidegaray, 2000) while others rely solely on accountability (Mouchard, 2018). Additionally, the focus on accountability relations rather than on a technical evaluation of the platform's digital architecture or performance means that technical aspects are considered only insofar as they affect accountability processes, potentially overlooking specific design features that might be relevant to other strands of research. Thirdly, the study relies on the perspectives of public officials and civil society representatives and does not incorporate direct interviews with ordinary users, which may limit the extent to which citizens' experiences are captured. Finally, MES is a relatively recent and evolving platform, so the analysis reflects a particular moment in its development and may not capture longer-term institutional and behavioural dynamics.

4. Findings and Analysis

This chapter presents the empirical findings and analysis of this thesis and is divided into four sections, guided by the conceptual framework introduced in the second chapter. Therefore, the sections are first, the information stage, followed by the debate stage and then the consequence stage. The first section examines the information stage, addressing what accountability information exists in relation to MES, and whether it reaches the forums and citizens it nominally addresses. Section 4.2 focuses on the debate stage, analysing the forums through which accountability deliberation about MES occurs, their accessibility and the quality of engagement that occurs. The next section concerns the consequence stage, analysing what mechanisms exist to redress, correct and sanction the actor, should it be needed, and whether they function as intended. Section 4.4 presents the findings generated by the emergent analytical category retained through the coding process. This section captures the dynamics that the framework does not anticipate but that the data produced independently of the deductive structure. To note, to ensure the transparency of the analytical procedure, the full codebook and coded segment frequencies are provided in Appendix 6 and cross-referenced throughout this chapter.

To situate the findings of the analysis, the research question is restated: How is accountability understood and represented in France's national digital health platform, Mon Espace Santé, across institutional documents, public officials, and civil society actors?

4.1 Formal Provision & Structural Inaccessibility

The first stage of the Bovens's (2007a) accountability framework demands that the actor provide a specific forum with an account of their decisions and conduct that is legible for that forum to evaluate. For this stage to work, information needs to exist and be directed towards an identifiable forum, thus neither general public communication nor documentation that satisfy legal requirements without producing genuine understanding qualify as sufficient (Bovens, 2007a). The findings across the data collection demonstrate that the information stage of MES is characterised by a consistent gap between its formal provision and its functioning. This gap is organised around

four connected findings, which include the directional asymmetry of official information provision, a relay failure through which platform changes do not reach relevant actors, a double legibility barrier preventing understandings, and the managed opacity through which certain actors simplify what they share.

Firstly, the legal and regulatory documentary sources establish the de jure information stage through a layered network of obligations. The first law 2019-774 formally defined the state's accountability obligations in relation to MES and established the legal basis within which all subsequent information provision must operate. Decree 2021-1048 specified the process for account creation, which included an opt-out notification mechanism. Through this mechanism, citizens were informed of the account creation and had six weeks from its dispatch to communicate their opposition to the account's creation (Code 1.1). The last decree 2024-468 updated user information rights and introduced personalised prevention messaging. Taken together, these instruments demonstrate that although the information stage is mandated, the burden of response for explicit consent is placed on the citizen instead of requiring active understanding. In this case, the information stage is satisfied only by the existence of the information, however, it has not been directed towards a specific forum, nor is it legible to all due to the legal vocabulary used.

The Press Release (2024) and the Digital Health Policy (2025) shed more light on how the state directs accountability information about MES at citizen forums (Code 1.1). Both present MES' benefits, which include that it creates an opportunity for centralised health data, features prevention messages and improves care coordination. Yet these documents do not address the governance network through which the platform operates, the data processing arrangements allowing or preventing who can access citizen health data, nor the accountability mechanisms available should the platform malfunction. The information in these public facing documents is directed towards citizens as the intended users rather than as accountability forums, thus meaning that instead of being informed of what they can demand, from whom, and through what channels, citizens are only informed of what MES can offer. Furthermore, the Court of Auditors audit (2024; Code 1.1) emphasises this by making mentions of governance weaknesses, implementation challenges and structural issues that MES public communications did not disclose. This ultimately indicates an asymmetry in the information provided towards the citizens as a forum compared to the information directed at institutional forums.

Another issue with the information stage concerns the sharing of information between relay actors through whom accountability information should reach citizens. One actor shared that

“We have an example where a platform update was carried out, and we weren’t informed – or perhaps I missed the email. The change concerned supplementary health insurance, and the application process was altered. We have no direct communication with the health insurance provider” (Interview 5, personal communication, March 25, 2026; Code 1.2).

While this experience occurred with another digital health service, namely Amelie, the participant used it to demonstrate the lack of a direct communication avenue between them and the national health insurance, remarking that this could potentially occur with MES. Furthermore, this yields direct consequences for citizens’ understandings of the platform as this actor is a front-line public employee directly responsible for relaying official information, who in this case was sharing inaccurate guidance. On the forum side, this breakdown in the sharing of information was also felt: “And [...], it’s very often that we don’t even get it [new procedure or form update] sent to us; we only find out about it whilst supporting people” (Interview 1, personal communication, March 18, 2026; Code 1.2). This creates a reversal of the direction the information stage requires as described by Bovens (2007a). Thus, the forum discovers the account by encountering its consequences and not by the actor providing a legible account to the forum.

This failure further extends beyond the breakdown of information between actors and forums. Interview 2 shared that when asking colleagues, social centre workers and regional delegates whether they had opened their MES accounts, none had done so. Interview 5 corroborated this from the actor’s point of view: “People aren’t aware of (MES) and use Ameli.fr instead” (personal communication, March 19, 2026; Code 1.2). It can, thus, be understood that the failure of the relay of information characterizes the baseline awareness of MES, across state and civil society intermediaries. Health professionals, as users and accountability conduits of MES, are also affected. Interview 1 explained that “They don’t always necessarily have the answers to explain why it’s worth using an Amelie account or another platform they might be expected to use” (personal communication, March 18, 2026; Code 1.1). They also noted resistance among healthcare practitioners in using these platforms as there are too many and each update requires a new learning phase. Interview 2 corroborates that from personal experience “No one has ever mentioned it to me. No pharmacist, no doctor, no laboratory has ever said to me, ‘Do you want us

to put this on (MES) or are you not aware of it?” (personal communication, March 19; Code 1.2). Ultimately, this indicates that the information stage has not penetrated the professional network, despite it being required by law since 2020 (Interview 8, personal communication, April 2, 2026; Code 1.2).

Moving along, in the cases where information reaches citizens, the interview data indicated that a double legibility barrier exists. The first and primary barrier is not digital but administrative. Interview 7 drew on survey data to explain that the difficulties most frequently reported by participants attempting digital administrative procedures are “more administrative than digital” (personal communication, April 2, 2026; Code 1.3). Translated in numbers, this interviewee estimated that half of the French population faces difficulties with administrative tasks, and within this group, an estimated 30% face difficulties related to the digitalisation of these tasks (Interview 7, personal communication, April 2; Code 1.3). The Consultation Report (2025) confirmed this as respondents ranked the simplification of vocabulary as their primary recommendation, describing the current language as too technical and anxiety-inducing (p. 5; Code 1.3). This document acknowledged the failure and concluded by classifying this as completed, as the National Health Authority [FR: Haute Autorité de Santé] has integrated these definitions. However, no further information is provided.

The other barrier operates within MES at the level of content. Interview 10 found that their medical history records were written in medical gibberish: “I do find that the medical history is still in medical jargon. I’m not sure it’s easily usable” (personal communication, April 21, 2026; Code 1.3). To note, this observation comes from an individual with an extensive background in computer sciences and digital comprehension, not a vulnerable citizen, which indicates that the content-level legibility is not marginal. For the most excluded populations, this legibility barrier is preceded by an equipment barrier that makes all subsequent failures redundant. Interview 9 explicitly stated that “They don’t have a computer. They don’t have a smartphone with internet access. So, as a result, they don’t even have access to (MES)” (personal communication, April 7, 2026; Code 1.3). In this case, the information stage fails before it begins for these citizens and the official documentary records contain no mechanisms for reaching this population through alternative channels. Although civil society attempts to mitigate this as Interview 3 described “We go as far as providing support that enables them to use digital technology in a somewhat professional way,

shall we say, but mainly for basic service roles (personal communication, April 23, 2026; Code 1.3).

Finally, the data shows that the core issue lies not in what MES fails to communicate, but what actors and forums alike choose not to transmit due to content opacity. Forum-based Interview 6 stated that when explaining the application, they deliberately keep it vague to let users know that they can basically trust that there won't be any loss of data due to the general regulations and the protection of rights. The reason they purposively maintain vagueness is because "the organisational structures that are set up for digital health, never in a million years should it be presented to users. It's enough to drive you mad" (personal communication, March 27, 2026; Code 1.4, 5.1). The ambivalence nature of this excerpt is significant as the interviewee acknowledges both the legitimacy of citizen confusion and accepts opacity as the professional response. Furthermore, the reason for this is that there are as many applications as there are steps in the data processing journey, which the interviewee does admit is a feature of French administration, however more critically; for them MES's organisational structure is also depicted as "tentacular [...] somewhat disjointed and [...] very improvised" (Interview 10, personal communication, April 21, 2026; Code 1.4, 5.2). The fact that both a forum and an actor arrive at opacity as their response and description of MES indicates the structural complexity of the platform is a consistent feature of how MES is experienced across the accountability relation.

The information stage gap is thus a function of what MES does not communicate and of what its intermediaries choose not to share. To note, opacity here is created not through bad faith but through a rational professional response to simplify genuine structural complexity.

Further intensifying opacity are concerns for privacy, given the sensitivity of the data. Interview 10 admitted that if they had "something serious that I didn't want anyone to know about. I don't know if I'd put it on there. Because, actually, these days there are so many data breaches that you can't really be sure it'll be protected, can you?" (personal communication, April 21, 2026; Code 1.5). Interview 9 added that individuals who have experienced online hacking or cyber scams may feel apprehensive and do not see the benefits of digital technology. Considering both remarks, the information stage cannot produce meaningful accountability for citizens who have already concluded that participation itself carries risks that the official documentation does not address.

Overall, these four findings illustrate that MES' information stage exists across legal mandates, consultation processes, and official communications but fails functionally at the relay level, at the legibility level, at the content level, and at the trust level simultaneously. The directional difference of this stage causes information to be reached by forums once the platform is already in service, rather than before. This in turn prevents forums from questioning decisions made during the conceptualisation of the platform and prevents them from demanding explanations. Legibility problems prevent citizens, as the group for whom MES is intended to serve, from understanding its purpose or simply being aware of its existence. Lastly, the opacity over the organisation of MES prevents forums from finding actors and creates concerns for privacy. Ultimately, these limitations operate at the same time and reinforce each other, producing a cumulative condition in which the information stage is insufficient across every dimension on which the following stages depend.

4.2 Forums Without Reach & Deliberation Without Consequences

The second stage of accountability demands that the forum interrogate the account provided by the actor, pose questions and pass judgement based on the information received. For this stage to properly function, forums must possess the formal right and practical capacity to meaningfully engage. Thus, meaning that a forum that institutionally exists or is recognised yet lacks the technical expertise, access or resources to engage produces a hollow accountability relation (Bovens, 2007). Schillemans (2011) warns that this stage is most frequently deficient in practice, usually due to resource asymmetry between the actor and forum and the tendency of forums to reward formal compliance over substantive engagements. This creates shallow accountability even if deliberative mechanisms are in place. The findings that the data illustrate confirm this observation in the MES case. More precisely, the debate stage is not absent as forums are identified, consultation processes are conducted, and feedback mechanisms exist, yet it faces four limitations. Which is the retrospective nature of consultations, the deliberate foreclosure of executive access, the informal and hierarchical nature of MES's feedback mechanisms, and the siloed governance architecture that prevents the shared knowledge among actors and forums.

Accordingly, the first finding that emerged across the interview data on the debate stage is that consultation with civil society forums occurs after the design of the platform rather than during it. This observation is mentioned in every civil society interview and by one actor interview, indicating that this is a structural feature of this stage in the MES context. The actor-based Interview 7 explained that they “were mobilised a bit after the event, once [MES] had been fully designed” (personal communication, April 2, 2026; Code 2.1). Though not part of the designing team and thus did not expecting early inclusion, they noted that “the team designing [MES] had realised that, whilst [they] were designing a digital tool intended for the whole population, not everyone is able to make use [it]” (Interview 7, personal communication, March 23, 2026; Code 2.1), which in turn created a need now for support services. This interviewee added that digital mediators, tasked with ensuring digital inclusion, were also “not consulted during the design of this tool.” However, Interview 1 added that with MES this is improving due to the appointment of MES ambassadors, volunteers who train people to use MES, although the appointment is “often done after the services have been created, rather than beforehand to design a service that is as relevant as possible for end users” (personal communication, March 18, 2026; Code 2.1). These remedial mechanisms, designed to compensate for the absence of consultation, is itself deployed after which confirms that the post-hoc character of this stage is not accidental but an organisational logic that extends to MES’s own corrective measures.

Further corroborating this is the Consultation Report (2025). This concertation began in November 2024, more than two years after MES’ national launch in January 2022 (Code 2.1) This document addresses specific features rather than the platform’s foundational governance architecture, which had been fixed before any civil society engagement occurred. Thus, this source is evidence for a functioning debate stage, with 300 contributions gathered, analysed, and summarised, and proof of its structural limit: deliberation that occurs after foundational decisions have been made can adjust a platform's interface but cannot revisit the accountability architecture that determines how it operates. The synthesis page provides a list of the actions that have been taken and what has yet to be done, making the debate stage’s consequential weakness visible within this official record; five of the ten recommendations generated by the participants remain unimplemented at the document’s publication, including a national communication campaign (Direction du Numérique en Santé, 2025, p. 16). This non-implementation is not accidental but is a direct consequence of the consultation’s timing. A post-hoc forum can only produce recommendations targeting surface

adjustments, and when those adjustments carry no enforcement obligation, the actor faces no cost for non-compliance (Code 3.3).

Beyond this retrospective pattern, the interview data exposed that the debate stage is foreclosed at the national executive level. Interview 3, who is part of one of the largest digital inclusion civil organisations in France, has been unable to obtain a ministerial meeting for two years, despite cabinet changes. The interviewee interprets this as strategic avoidance,

“Let’s be honest, the government hasn’t been particularly responsive to the voluntary sector in recent years [...] We haven’t managed to secure a single meeting with the Minister for Digital Affairs ... if they don’t meet with us, it saves them from having to justify, I think, these budget cuts” (Interview 3, personal communication, March 23, 2026; Code 2.2, 5.2).

This is a clear indication of the debate stage failing in its most politically consequential form. Exclusion is attributed to a strategic interest in avoiding the accountability deliberation that access would require. If the forum cannot reach the actor, the actor is not required to render an account, and neither the information obligations nor the consequence stage mechanisms can be triggered. However, all is not lost as this interviewee explains that in their advocacy campaigns, they exchange a lot with parliamentarians and “find it very easy to engage with local authorities, [who] are on the front line when it comes to the consequences of digitalisation” (Interview 3, personal communication, March 23, 2026; Code 2.2, 5.3f). As well, they interact a lot with the National Agency for Territorial Cohesion [FR: l’Agence nationale de cohésion des territoires] “which oversees digital inclusion policies, but they themselves are (...) somewhat powerless” to enact direct changes to MES (Interview 3, personal communication, March 23, 2026; Code 2.2).

Moving on, when the debate does function within the platform’s own continuous improvement process, the findings demonstrate a feedback mechanism that is informally and hierarchically organised in ways that suppress citizen voices. Actor-based Interview 8 positively evaluates the feedback process, describing constant improvements and monthly version releases (personal communication, April 2, 2026, Code 2.4, 5.3). However, this positive evaluation sits in direct tension with forum-based accounts. Interview 1 has described health professionals as lacking answers to explain platform value (personal communication, March 18, 2026; Codes 1.1, 5.2), and Interview 3 has stated its inability to secure ministerial access despite cabinet changes (personal communication, March 23, 2026; Codes 2.2, 5.2). Thus, the same improvement architecture that

the actor evaluates as functioning and responsible is oppositely evaluated by forums. This divergence, consistently reflected across Codes 5.2 and 5.3 (see Appendix 6), is not a matter of different information but of structurally different positions; actors see the formal architecture, forums experience its practical limits.

The same actor added that “there is a user group comprising healthcare professionals whose views are given particular weight compared to other feedback” (Interview 8, personal communication, April 2, 2026; Code 2.3). This explicit acknowledgement that health professionals’ experience is given more attention establishes a formal hierarchy within MES deliberation avenue. And the forum type most likely to scrutinise MES from the citizen’s perspective is structurally subordinate to the professional forum.

Furthermore, the informal nature of this feedback aggravates the latter. Interview 8 describes the process as “more of a mindset within the administration than an actual process that needs to be put into practice” (personal communication, April 2, 2026; Code 2.4). Thus, meaning that citizen input is portrayed as a disposition to consider and not structurally included. Within the dataset, this represents the most official acknowledgement that the debate stage between MES and citizens is not institutionalised. Its functioning depends on the inclination of those within the administration rather than on mechanisms that would independently operate on this. This is precisely the condition Papadopoulos (2023) identified as creating empty shells, which is caused by formal accountability arrangements being dependent on voluntary engagement rather than enforceable obligations.

The final dimension considered here is the governance organisation within which MES operates. Multiple interviews identify sectoral siloing as a structural condition preventing the debate stage from forming, even when actors and forums are willing to engage. Forum-based Interview 6, who is responsible for training healthcare professionals in their usage of MES, names this at the institutional level: “between the [Regional Health Agencies] and the [Regional Health Development Agencies], we no longer know who our point of contact is” (personal communication, March 27, 2026, Code 2.2). Thus, meaning that even within the health professional community, the relevant accountability interlocutor for MES is unclear, preventing forums from addressing the appropriate actor should problems arise. Public-facing actor Interview 5 illustrates this by explaining that as coordinator, they have no direct communication with the national health insurance and cannot systematically relay problems observed. In this sense, the

debate is physically present, as they, the coordinator, are in daily contact with citizens experiencing MES, but are structurally disconnected from the actors whose conduct should be scrutinised.

Interview 1 is more explicit on the matter,

“The problem with healthcare is that [it is] very compartmentalised, so you’ve got digital inclusion, you’ve got healthcare—or rather, digital technology in healthcare—and, well, there are lots of different strands, but they don’t really talk to one another. Digital mediation professionals don’t necessarily have links with healthcare professionals. Healthcare professionals aren’t necessarily aware that digital mediators exist” (personal communication, March 18, 2026, Code 2.5).

This indicates that the groups that collectively constitute the forum for MES accountability, namely, health professionals, digital mediators, patient associations, do not communicate. For the debate stage this means it cannot draw on distributed knowledge. Overall, each forum knows part of the governance structure, none have access to the whole, and no mechanisms exist through which to share knowledge. Although the Organisation of the digital health delegation [FR: Organisation de la délégation au numérique en santé] roadmap (2023-2027), mentioned by Interview 8, promises co-creation of knowledge with citizens, professions and institutions, no interviewee could identify concrete examples as the roadmap nears completion.

In summary, the findings demonstrate that the debate stage of MES exists formally, across consultation processes, improvement feedback loops, and institutional oversight mechanisms. However, it fails structurally across every dimension that meaningful accountability deliberation requires. Put differently, consultation reports occurring after the design of MES prevent the possible for debate that could influence design decisions. Executive access being withheld from civil society actors breaks down the accountability relation at the point of highest political consequence. The informality and hierarchical design of the internal feedback mechanisms favour one forum group over the other. And the siloed governance organisation prevents actors and forums from having the full picture that deliberation requires. These failures add onto each other as a post-hoc forum cannot be enforced, an excluded forum cannot interrogate, an informal mechanism cannot be enforced, a siloed architecture cannot be held accountable as a whole. The consequence stage examined in the next section inherits all these limitations and adds structural failures of its own.

4.3 Present Mechanisms & Absent Redress

The third and final stage of Bovens' (2007a) accountability framework asks that the forum pass judgement and if appropriate, impose sanctions and demand corrections. Schedler (1999) identified this as the enforcement dimension of accountability, explaining that without credible consequences the previous stages are reduced to a performative exercise, whereby information is provided because it is formally required, debate occurs because it is institutionally mandated, but the actor has no incentive to respond because non-compliance carries no real cost. The findings from the data collection confirm that the consequence stage of MES is the most structurally limited of the three stages, due to the lack of mechanisms available to ensure consequences can be applied. Therefore, formal consequence authority exists without sanctioning reach; correction mechanisms exist without verified citizen contact; redress infrastructures exist but are being actively defunded, and the primary response of citizens to accountability failure is silent abandonment instead of complaint, producing a consequence stage that closes at the institutional level and leaves the conditions that generate limitations unchanged. This section organises the findings into four themes, namely a de-responsibilisation cascade, a performative correction mechanism, structural limits of formal accountability forums and a self-concealing nature of consequence stage failure.

The first finding observed is a transfer of accountability responsibility away from the state and toward citizens, civil society and volunteers. With each transfer, the locus of responsibility moves further from the actor with design authority and closer to citizens with none. Interview 7 covers this dynamic “digitalisation has, in fact, effectively shifted the responsibility for ensuring the smooth running of administrative procedures from the administration to the end user, the citizen, who is left alone in front of their screen at home” (personal communication, April 2, 2026; Code, 3.1). This comes from an actor who leads a national pilot scheme for digital inclusion and is the clearest expression of the accountability shift uncovered in the findings. Forum-based Interview 3 confirms this pattern stating that “the government needs to stop evading its responsibilities, because that’s pretty much what it’s been doing for the past few years” (personal communication, March 23, 2026; Code 3.1).

Furthermore, this transfer does not stop at the citizens. In fact, when citizens are unable to navigate the system, responsibility shifts towards civil society intermediaries who absorb the accountability obligation without receiving the authority or resources to fulfil it. Interview 4 recognises from the actor side that its organisation exists precisely to compensate rather than to perform an accountability function, “We’re basically a state-funded initiative designed to make up for the state’s failure, in my view” (personal communication, March 24, 2026; Code 3.1, 5.1). The ambivalence of this statement is revealing, the interviewee identifies the dysfunction and accepts their role within it as necessary. This represents a rational response to an institutional position that offers no alternative. Interview 2 further added that, “The counters won’t be reopening, so someone will have to do it anyway” (personal communication, March 19, 2026; Code. 3.4, 5.1). The counters mentioned refer to public service windows where street-level bureaucrats could directly meet with the public, which have been shutting down. Interview 5, who is positioned at the boundary between state delivery and citizen access as a street-level bureaucrat, describes having to fill gaps that the platform has not addressed. Moreover, all three interviews, two, three and five describe their role as compensatory, which confirms that de-responsibilisation is recognised by both the forum and the actor. Oppositely, Interview 3 evaluates this condition without ambivalence, framing state evasion as an active political choice rather than a structural inevitability (personal communication, March 23, 2026; Codes 3.1, 5.2). The difference here between ambivalent and negative evaluation maps onto the differences between actors embedded in the compensatory infrastructure and forums positioned outside.

However, when these intermediaries are unavailable, accountability is transferred to volunteers, who, as Interview 9 reveals, risk legal liabilities when helping citizens with digital procedures because they do not possess the same discretionary powers as social workers. Furthermore, the platform Helper Connect [FR: Aidant Connect], which enables professionals to carry out administrative procedures online on behalf of citizens, excludes volunteers. Oppositely, the documentary sources do not demonstrate this cascade. The Law 2019-774 formally locates accountability within the state and the following Decree 2021-1048 places responsibility for account management with the citizens Code 3.1). (The Digital Health Policy (2025) presents MES as a tool which empowers citizens to manage their own health data. This divergence between the two sources of data demonstrates a clear difference in the de jure and de facto accountability gap at the consequence stage.

Moreover, when formal correction mechanisms exist, the findings reveal that it closes at the institutional level without a verified citizen redress. Interview 5 provides an operational illustration. They mention the administration+ mechanism, through which problems encountered by street-level bureaucrats can be sent, confirms resolutions to the intermediary without verifying with the citizen, whose problem was reported, that their problem is solved:

“The problem is that they reply to us to confirm that the issue has been resolved, but there is no guarantee that the user has actually been contacted. Furthermore, the replies do not always address the questions” (personal communication, March 25, 2026; Code 3.2).

While this denotes a formal closure and dismissal of the citizen problem, this also creates back-and-forth movements for citizens. Consequently, Interview 5 describes that they have resorted to also sending “people to the agencies with written notes explaining the situation,” (personal communication, March 25, 2026; Code 3.4) and it is in this context if the problem is not solved it leads to citizens having to go back and forth between the agency capable of solving the problem and the location of Interview 5. Ultimately, this produces physical displacements, time cost and repeated exposures to the same unresolved problem, which is an example of too many hands operating at the consequence stage and not the design stage. The Court of Auditors audit (2024) corroborates this at the documentary level, identifying implementation weaknesses of MES and governance issues that the platform fails to communicate, which confirms that the gap between institutional records and the lived experiences of citizens is apparent to oversight forums without producing the corrections that visibility should trigger (Code 3.3). Taking this into account, Interview 8 (personal communication, April 2, 2026; Code 3.2) explains that a technical correction procedure for data misdirection errors exists, where technical support teams contact the health professionals responsible for uploading faulty data to ensure they correct the error and resend the correct document to the correct patient. While this is a meaningful example of a functioning feature of the consequence stage, its scope remains narrow. Put differently, this correction mechanisms do not extend to other problems citizens may face in the MES application, such as inaccessibility or misunderstandings.

The third finding sheds light on how forums nominally capable of imposing consequences on MES actors are each limited in the specific dimension their function requires. Interview 3 (personal communication, March 23, 2026, Code 3.1) mentions the national Ombudsman [FR: Défenseur

des Droits] as a forum with normative authority that regularly documents the harms of digital exclusion and has repeatedly called for the maintenance of a human alternative but possesses real sanction power. The Council of State [FR: Conseil d'État] which is the highest administrative court in France has formal sanctioning powers, “first there has to be an appeal, and then the Council of State has to comply, because there are situations where the Council of State rules against the State, orders the State to take certain actions, and the State does not necessarily do so” (Interview 3, personal communication, March 23, 2026; Code 3.1). The National Commission for Information Technology and Civil Liberties [FR: Commission nationale de l'informatique et des libertés] has audit and enforcement powers over data processing, as referenced throughout the documentary sources, but its enforcement on matters affecting MES is not documented in this selection.

Adding on to this is the budgetary dimension. Interview 8 specifically names budget reductions as a constraint on the consequences and support infrastructure, “the services and France Service advisers are being phased out. As a result, the France Service centres are seeing their budgets cut” (personal communication, April 2, 2026; Code 3.4). To note, the France Services are local service centers that facilitate access to public services and assist citizens with their administrative procedures (Interview 5, personal communication, March 25, 2026; Code 3.4). Thus, the infrastructures through which citizens receive support when they encounter problems with MES are actively being defunded. The Organisation of the digital health delegation roadmap, Interview 8 (personal communication, April 2, 2026; Code 3.4) mentions, expresses a commitment towards the training of 10.000 digital mediators in digital health by June 2026 and to ensure that 80% of all health establishments have introduced digital sensitisation actions by the end of the year. However, the same interviewee does not specify what will happen should these targets not be met in time.

The final finding the data highlighted for this stage is the abandonment of MES by the population for whom its accountability failures are most consequential. Interview 2 articulates this abandonment directly, “A person living alone gives up. They don't see the process through to the end. Clearly” (personal communication, March 19, 2026; Code 3.5, 5.2). Interview 5 adds to this “They are left stranded and find themselves without care. A feeling of helplessness” (personal communication, March 25, 2026; Code 3.5, 5.2). Interview 9 further warns that “there is a risk of people foregoing their rights and care” (personal communication, April 7, 2026; Code 3.5. 5.2).

These accounts evaluate the consequence stage as producing harm for the most excluded citizens. Notably, no actor-based interviews offer a positive evaluation of the platform's reach to this population, making this one of the few findings where evaluative divergence between actor and forum does not appear. All in all, this relates to how the consequence of failure is felt by citizens. Put differently, citizens who cannot navigate MES do not contest their exclusion through any formal accountability mechanisms, they forgo the rights and the improvement of their care for which the platform was designed to ensure. This is the consequence stage failing at its most democratically consequential form due to the absence of any mechanism through which the actor is made aware that its failures are producing harm.

Interview 10 expresses how this silence should be measured by stating that "Once you start providing a service like that, which comes from the state—in other words, you're offering to take responsibility for that service and in that case, you ensure the continuity of the service" (personal communication, April 21, 2026; Code 4.5). Here, service continuity is described as a state accountability obligation, if the state takes responsibility for a digital service it must plan for potential failures, ensure alternatives and guarantee operational continuity. This principle is not contested by any other interviewee, and what this data reveals is that this is not being operationalised. The only degraded mode described in the entire dataset comes from Interview 6 (personal communication, March 27, 2026; Code 3.4), who mentions that papier dossiers in hospitals are held as backups for digital health data, should MES or other platforms fail. However, no equivalent continuous mechanisms for citizen-facing MES access are described.

Taken together, these findings establish that the consequence stage of MES is characterised by a gap between its formal existence and its practical operation, that is graver than the information or debate stages. To note formal mechanisms, exist and have been identified, namely administration+ correction loop, oversight, State Council jurisdiction, but each face limitations. Corrections fail to reach citizens, oversight identifies limitations without applying corrections, and the highest formal accountability forum can be ignored by the state. The infrastructures that can bridge these gaps, digital mediators, civil society, and France Services, are actively being defunded. And the population for whom these failures affect the most respond with abandonment of the platform. In other words, the less the platform reaches users, the less its failures are visible. The cumulative effect of these stages' failures indicates that the accountability relation has no natural starting point

for the population. The following section will examine what the data reveals about why this condition is structurally reproduced rather than produced by accident.

4.4 Removal of Human Mediation, Prioritisation & Jurisdictional Limits

The previous sections have detailed the accountability relation of MES and how it faces limitations present at each state and that all reinforce each other. While these accountability stages were determined based on Bovens' (2007) framework, certain elements fell outside of its scope. This section, therefore, analyses findings that emerged from the emergent code, maintained through the analytical procedure. Three interconnected dimensions were noted, the removal of human mediation, the priority hierarchy exempting MES from rights-based scrutiny, and the jurisdictional limit that places key infrastructure beyond the reach of formal consequence mechanisms. This section demonstrates that these dimensions constitute governance conditions of accountability as a relation in the context of digital public health services.

The most apparent finding concerns what digitalisation produces rather than what it deploys. Interview 7 states this precisely, "It's not so much digital technology itself that's the problem, but rather what it produces. So, what does it produce? It produces disintermediation" (personal communication, April 2, 2026; Code 4.1). In this sense, disintermediation evokes the removal of a human intermediary that previously stood in between the state and citizen to accompany them. The same interview observes that the state had to reintroduce intermediaries that digital technology had first removed (Interview 7, personal communication, April 2, 2026; Code 4.1). These intermediaries have thus become known as digital mediators. In this sense, digitalisation is the reason to remove human intermediaries while also being the reason for their reintroduction. Interview 2 adds to this by explaining that "Digital technology is always there to support people and never to replace them, whenever it comes to replacing people, it's a danger for everyone" (personal communication, March 19, 2026; Code 4.1). This is introduced as a self-evident principle of governance rather than a position up for debate. The interviewee stated from the position of a national delegate suggesting a broadly shared practitioner understanding which was dismissed from MES' design. As such, the removal of human mediation has direct implications for the three

stages of accountability. Each of Bovens' (2007a) stages was operationalised in the context where a human actor mediated between the institution and the citizen. The mediator was part of the information relay, the debate and could act as a consequence trigger, or help solve issues citizens faced. Dematerialisation removes this actor from all of the stages, which is why the failures documented before appear through the accountability relation.

Interview 3 (personal communication, March 23, 2026; Code 4.2) adds a further point to this finding, in that digitalisation with its initial goal to reduce the materials needed for public services, has created the need for more. The reason this is pertinent is that the term the French state uses for digitalisation is *dématérialiser*, which designates the process involved in converting documents, procedures or communications that were previously handled on paper into digital information that is stored and processed electronically. Literally meaning this process sought to reduce the necessary materials or to dematerialise. Interview 7, agreeing with Interview 3's sentiment, explains that perhaps this is due to the transition of digitalisation not being organic but actually state-imposed, "since [the] Public Action 2022 plan [...] there has been a massive shift towards digitalisation, at least when it comes to administrative procedures" (personal communication, April 2, 2026; Code 4.2). However, they admit that an estimated 75% of people use online administrative procedures, meaning that this imposition has translated into a need for this form of public service and consequently, for them to be accountable.

The second emergent finding relates to how MES is perceived in the hierarchy of priorities for citizens, civil society and public officials. This expands on the limitations of the information stage as the findings there focused on the lack of knowledge around MES, while here the focus is on why it receives less attention and less scrutiny than other digital health services in France. Interview 10 illustrates this issue, "For me, it's not about access to rights. MES is about user support. (...) It doesn't actually grant any additional rights" (personal communication, April 21, 2026; Code 4.3, 5.2). This classification of MES removes it from the domain of rights-based advocacy that civil society organisations would apply to mandatory services. Interview 3 confirms this prioritisation by stating "if you don't use MES, you can still receive treatment" (personal communication, March 23, 2026; Code 4.3, 5.2). Thus, meaning that the non-use of MES does not prevent access to care, however since the purpose of the platform is to improve care, the quality may be affected, perhaps in the time delivery should patients forget elements of their medical

history. Oppositely, actor-based Interview 8 (personal communication, April 2, 2026; Code 4.2; 5.1, 5.3) positively presents voluntariness as an ethically necessary design choice aimed at preserving citizen autonomy. This is the evaluative divergence in its most concentrated form, the same design choice is both the actor's ethical justification and the forum's explanation for why accountability mechanisms are not triggered. Citizens who distrust MES do not use it, do not generate complaints and therefore do not constitute an accountable forum. The actor's positive evaluation of voluntariness as autonomy-preserving is, from the forum's position, an evaluation of the condition that makes accountability structurally impossible.

The final theme that emerged from this open code relates to the conditions under which consequences could attach to MES governance failures, and the legal boundaries that prevent them from doing so. Interview 2 explicitly names data sovereignty as a concern, "that data could potentially be accessed by authoritarian regimes" (personal communication, March 19, 2026; Code 4.4). While this risk is limited for MES as the French state has ensured the platform is made by French actors and the data stored in French cloud infrastructures, in accordance with French law (*Mon Espace Santé, Un Carnet Santé Numérique Et Sécurisé*, 2025.; *Où Sont Hébergées Mes Données?*, 2025). However, all forum-based interviews still expressed concern for the matter and the pressing need for digital sovereignty for France. Interview 2 adds a further concern that this data could "be sold to insurance companies, for example, to check that people haven't had cancer" (personal communication, March 19, 2026; Code 4.4). Here the worry was that if the data is stored centrally and for some reason becomes accessible insurance providers could increase their rates by certain groups or even employers could fire or hire on the basis of what they know about an employee's health status.

Following this trend but applying it to the private sector at large, Interview 3 demands that "The government [...] stop relying on private operators for this sort of tool [because] we're talking about people's health here, we're talking about healthcare, which is an essential public service" (personal communication, March 23, 2026; Code 4.4). Thus, the involvement of private actors is incompatible with the public obligations of accountability, especially in the domain of health. Interview 2 adds that their involvement is essential as there are almost no public software developers. The only description this data set received about these developers is from Interview 7, "It's mostly men, mostly young men, mostly urban dwellers, with university degrees" (personal

communication, April 2, 2026). However, for this interviewee the issue this brings up is how this group may affect how the service is designed and consequently received.

These findings reveal how forums perceive MES as carrying unresolved jurisdictional risks, as this perception has accountability consequences regardless of the dematerialisation and disintermediation of these risks. When a forum identifies data sovereignty or private actor involvement as a governance concern, their perception could shape how citizens engage with the platform. More precisely, if the consequences' stage reach is restricted by the formal accountability mechanisms and the trust citizens have in those mechanisms to protect their rights. In other words, when trust is absent, citizens disengage, leaving the platform without their feedback.

Towards a Theoretical Assessment

The findings presented across this chapter illustrate that the limitations of MES' accountability relation are not just accidental but produced by specific governance conditions, and not merely by the assumptions held by the framework. The framework assumed an identifiable actor with the capacity of rendering legible accounts of their behaviour. However, digitalisation removes identifiable actors without replacing them. The framework had also presupposed that forums could evaluate and scrutinise the service, however the level of priority MES receives prevents this from happening. Furthermore, it expected that jurisdictions would suffice for the implementation of sanctions during the consequence stage, without accounting for jurisdictional limitations.

Nevertheless, the framework's categories remain productive and their distinction matters. The three-stage structure identified how each stage faces limitations, allowed for the analysis of which actor-forum configurations create difficulties and shed light on why these stages are built upon one another. More precisely, the failures of the information stage directly constrain what the debate stage can interrogate, the debate stage's weaknesses determine what the consequence stage then inherits, and the consequence stage's incapacity means the conditions generating earlier problems are not corrected. However, the framework did not account for the effect of disintermediation, removing the human actors. This is significantly distinct from the many hands problem, as it is not

that many actors share responsibility, but rather the actor position is empty. This absence is framed as a technical transition in favour of digitalisation. Yet the choice to remove human mediation without designing an accessible replacement is a governance act, regardless of how it is presented.

The actor and forum categories organised this chapter and further revealed that the aforementioned condition is not unanimously perceived. Actors described a formal accountability architecture that is legal mandated, institutionally structured, and improving. Forums described how the actors needed for debate, exchanges or information do not always exist or simply inaccessible. This divergence, consistently reflected across the evaluative codes in Appendix 6 (Codes 5.2, 5.3), maps directly onto the structural positions of de jure and de facto (Papadopoulos, 2023). This thesis adds the observation that in conditions of disintermediation, this gap operates at a prior level; not only between what formal arrangements demand and what occurs in practice, but between what the framework assumes about the governance context and what the context is. Extending Bovens framework to accommodate disintermediation as a distinct accountability condition in digital public services, rather than a variant of the many hands problem, is this thesis's theoretical contribution.

This contribution raises further questions. Since this thesis examined only one national digital health platform within France, the findings cannot be generalised. However, future research could work to identify whether the vacancy condition appears across other digital public services and administrative contexts. This comparative quality would allow to determine the theoretical claim's scope. Secondly, this thesis only diagnosed the condition but has not evaluated what digital replacements for human mediators look like in practice. The reintroduction of digital mediators represents one compensatory response, but as this section demonstrated above, this reintroduction has itself been implemented post-host and without the resources or formal authority to fully accountability functions. It would thus be interesting to establish what structures are preferably for the effective replacing of human mediators. Lastly, the finding had established that the population most affected by MES' failures responds with abandonment rather than complaint, producing no signals for the accountability relation act upon. Existing frameworks assume forums generate demands that actors must directly respond to, yet disengagement prevents this. Analysing this dynamic that correlates the platform's reach to the visibility of its failures, also provides a theme that ought to be explored.

Conclusion

The aim of this thesis was to contribute an empirical analysis on accountability mechanisms in digitalised public services to produce the answerability, deliberation and consequences that accountability as a relation demands. As governance has entered the Digital Era, public functions are increasingly transferred to digital platforms with human mediators removed and no digital equivalents provided, causing the conditions under which accountability traditionally operates to be disrupted. The domain of public health was chosen as the sector in which the stakes of these failures are most visible and consequential for citizens. This thesis examined that disruption in the specific context of France's national digital health platform, MES, asking: how is accountability understood and represented across institutional documents, public officials, and civil society actors? France was selected as a particularly relevant case given its explicit ambition to lead the EU in digital health governance, making it both an instructive and timely context in which to test whether formal accountability architectures produce meaningful accountability in practice.

To address this, the thesis adopted Bovens' (2007a) three-stage relational accountability framework, information, debate and consequences, as its conceptual framework, using the *de jure* and *de facto* distinction developed by Papadopoulos (2023) as its analytical lens. The empirical material was made of ten semi structured interviews, four with actor-positioned respondents and six with forum-positioned civil society participants, alongside seven official documents. Data was coded in MaxQDA using a codebook derived from the framework, with one emergent category retained to capture dynamics that the deductive structure had not anticipated.

Considering the above, the central finding of this thesis is that accountability in MES formally exists and practically fails because the governance conditions in which the mandated formal mechanisms operate do not satisfy the assumptions the Bovens framework makes about its subject matter. This gap is systematic and cumulative; each stage failing in ways that produce the conditions for the next stage's failures. At the information stage, platform updates are not communicated, administrative and content-level legibility barriers are noted, participants admit to simplifying their communications which causes opacity. This stage is mainly directed at institutional forums, including parliament, the Court of Auditors, and then towards citizens as users

of a service rather than as forums who can demand explanations. At the debate stage post-hoc consultations foreclose deliberation on foundational design choices, executive access has been withheld from civil society organisations, the primary feedback mechanism prioritises healthcare professionals over citizen voices, and a siloed governance structure stops actors and forums from holding the whole system to account. At the consequence stage, accountability responsibilities are progressively transferred from the state towards citizens, then civil society and volunteers, correction mechanisms for MES close before verifying that citizens have been helped, formal oversight bodies can be ignored by the state, and support infrastructures are being defunded. The most consequential finding is silent abandonment, citizens who cannot navigate the platform forgo their rights rather than contest their exclusion, rendering the platform's failures invisible to those responsible for correcting them.

The emergent analytical category found that the governance condition underlying all three stages, disintermediation removes the human actor whose presence each stage of the Bovens' framework assumes, without providing a replacement. This is distinct from the many-hands problem that the literature addressed. It is not that responsibility is diffused across many actors but that the actor position from which an account could be rendered is vacant, with the vacancy framed as a technical transition rather than a governance choice. Two further conditions aggravate this; MES' voluntary nature exempts it from the rights-based scrutiny that mandatory services attract, reducing the civil society pressure it faces, and jurisdictional constraints place forum-identified concerns about data sovereignty and private actor involvement beyond the reach of formal consequences mechanisms, eroding the trust citizens require to engage with the platform in the first place. Comparing actor and forum respondents corroborated the de jure and de facto gap empirically: actors described a formal architecture that is mandated and continuously improving while forums described a governance reality in which the actor that the governance structure requires does not consistently exist in the form it assumed.

Overall, the broader implications of these findings extend beyond France and digital health. The conditions documented are predictable outputs of a governance logic that treats digital transition as a technical process rather than an accountability reconfiguration, and as public administration across the EU accelerates dematerialisation, they risk replicating them. Three policy conclusions stem from the analysis. First, accountability architecture should be designed before platforms

launch rather than adjusted post-hoc through consultations that cannot revisit foundational governance choices, co-production with civil society at the design stage should be required. Second, correction mechanisms must close at the citizen level, mechanisms that do not verify citizen contact conceals rather than resolves harm and should not constitute an acceptable standard for services to which citizens have a formal right. Last, the simultaneous defunding of digital mediators, and civil society intermediaries as the necessity for digital platforms for citizens is increasing constitutes a contradiction in accessibility or legibility of the services for citizens.

Before concluding, three methodological limitations qualify these findings and point towards avenues for future research. Firstly, the single case design limits the generalisation of findings to other platforms and other national contexts. It would therefore be pertinent to test whether dematerialisation as a goal of digitisation yields the same consequences in other countries, via a comparative analysis. Secondly, the absence of a direct French equivalent for the term accountability constrained conceptual precision. Accordingly, future research could examine whether this linguistic gap corresponds to deeper institutional deficits in contexts where the concept lacks an embedded vocabulary. Or oppositely, future research could analyse if understandings of accountability as a relation present more uniformly in nations who possess this word. Finally, the absence of interviews with National Commission for Information Technology and Civil Liberties [FR: Commission nationale de l'informatique et des libertés], patient associations and parliamentary oversight actors, means that certain formal forums are only evidenced through the documents. Therefore, dedicated research into their enforcement capacities, limits and understandings, especially in relation to private contractor involvement in public health infrastructure, would add the institutional dimension this thesis could not fully provide. Also, focusing on the National Commission for Information Technology and Civil Liberties and their enforcement capacity over digital health platforms and where exactly they face limitations.

The question this thesis leaves open is not whether digital public services can be made accountable, but whether the governance conditions required to make them so will be chosen before the populations they are designed to serve have already been lost.

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Appendix 1. List of Analysed Documents

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Appendix 2. Interviewee Organisations

Brief descriptions are provided for readers unfamiliar with the French institutional and civil society landscape. One organisation has been fully anonymised at the interviewee's request.

Actors

The Ministry of Health [FR: Ministère de la Santé] is the central government ministry responsible for public health policy in France, overseeing the design and governing of national health infrastructure, including Mon Espace Santé.

The National Agency of Territorial Cohesion [FR: Agence Nationale de la Cohésion des Territoires] is a public agency created in 2019 under the supervision of the Prime Minister, mandated to support local authorities in reducing territorial inequalities, including in access to digital public services.

State Digital Skills Agency (anonymised) is a public agency mandated to develop and certify digital skills among the French population, directly conditioning capacity to access digital public services.

France Service Houses [FR: Maison France Services] is a network of over 2,865 service centres designed to help citizens with day-to-day administrative tasks. They represent the operational frontline of digital public service delivery in France.

Forum

The Federation for Social Centers and Social Cultural Centres of France [FR: Fédération des centres sociaux et socioculturels de France] is a national civil society federation bringing together over 1,400 social and community centres across France, serving vulnerable and excluded populations.

La Mednum is the national cooperative for digital mediation in France, leading over 150 digital mediation organisations and operating in partnership with public institutions to coordinate digital inclusion policy.

Emmaüs France is an NGO founded in 2013 addressing digital exclusion among socially and economically precarious populations, providing access to digital tools, connectivity and skills training.

The Little Brothers of the Poor [FR: Les Petits Frères des Pauvres] is a humanitarian NGO founded in 1946, dedicated to combating the isolation of elderly people, with specific programmes addressing digital exclusion among them.

French Red Cross [FR: Croix-Rouge Française] is the French branch of the International Red Cross and Red Crescent Movement, operating a dedicated digital inclusion programme supporting vulnerable populations in accessing digital public services.

Appendix 3. Sample Recruitment Email

Sample Recruitment Email:

The following email has been adapted to the Appendix. Elements relating to why specific individuals were contacted (i.e. their role in a relevant organization or ministry) were removed.

Cher/Chère _____,

Je m'appelle Niamh Mc Dermott et je suis étudiante en master dans le cadre du programme « Politique et gouvernance à l'ère numérique » à l'université de Tartu. Je vous écris dans le cadre de mon mémoire de master consacré à la responsabilité dans les services publics numériques.

Dans ce contexte, j'aimerais savoir s'il serait possible de m'entretenir avec un membre de votre équipe (par exemple, une personne impliquée dans le plaidoyer ou dans la coordination des acteurs de la médiation numérique) au sujet de ces thèmes.

L'entretien (d'une durée de 30 à 45 minutes) pourrait avoir lieu par vidéoconférence ou en personne, selon vos préférences et vos disponibilités, à partir de la semaine du 9 mars.

Toutes les réponses resteront bien entendu confidentielles et anonymes. Cette recherche vise à recenser les défis et les bonnes pratiques permettant de renforcer la responsabilité et l'accessibilité des services publics numériques pour l'ensemble de la population, en particulier les personnes les plus exclues sur le plan numérique.

Je vous remercie sincèrement pour votre temps et votre précieuse aide et reste à votre disposition si vous avez besoin d'informations complémentaires.

Cordialement,

Niamh McDermott

Étudiante en master de gouvernance numérique

Université de Tartu, Estonie

Translated Sample Recruitment Email:

The following email has been translated from French to English by the author of the thesis.

Dear _____,

My name is Niamh Mc Dermott and I am a Master's student on the 'Politics and Governance in the Digital Age' programme at the University of Tartu. I am writing to you in connection with my Master's thesis on accountability in digital public services.

I am particularly interested in [x]. In this context, I would like to know if it would be possible to speak to someone on your team (for example, someone involved in advocacy or in coordinating digital mediation stakeholders) about these topics.

The interview (30 to 45 minutes) could take place via video conference or in person, depending on your preferences and availability, from the week of 9 March onwards.

All responses will, of course, be kept confidential and anonymised. This research aims to document the challenges and best practices for enhancing the accountability and accessibility of digital public services for all members of the public, particularly those who are most digitally excluded.

I sincerely thank you for your time and valuable assistance and remain at your disposal should you require any further information.

Kind regards,

Niamh McDermott

Master's student in Digital Governance

University of Tartu, Estonia

Appendix 4. Participant Information Sheet and Consent Form

This appendix includes copies of the information sheet and informed consent form that was shared with interviewees prior to the interview. For physical interviews, the researcher brought a physical copie.

Feuille d'information pour les participants et formulaire de consentement éclairé.

Titre provisoire de l'étude: Perceptions de la responsabilité dans la numérisation des services publics: acteurs publics et citoyens

Institut : Université de Tartu, Estonie

Département : Institut Johan Skytte d'études politiques

Chercheuse : Niamh Anoeck Mc Dermott, Institut Johan Skytte d'études politiques,
courriel : niamhmcdmrt@gmail.com

Professeur Responsable : Dr Kristina Muhhina, Institut Johan Skytte d'études politiques,
courriel : kristina.muhhina@ut.ee

Cher/Chère participant(e),

Vous êtes invité(e) à participer à un projet de recherche mené dans le cadre d'un mémoire de master. La chercheuse est étudiante en deuxième année du programme de master Politics and Governance in the Digital Age à l'Université de Tartu.

Avant de participer à cet entretien, veuillez lire attentivement les informations ci-dessous.

Si vous acceptez de participer, merci de signer le formulaire de consentement éclairé figurant sur de la page 5 de ce document.

Objectif de l'étude:

Cette recherche vise à analyser comment la responsabilité est conçue et attribuée par les acteurs publics et les citoyens lorsque les services publics sont numérisés.

L'étude de cas porte sur Mon Espace Santé, la plateforme gouvernementale française de santé numérique, pour explorer les perceptions de la responsabilité dans un contexte de dématérialisation des services publics.

En interrogeant les attentes, les expériences et les tensions liées à cette transition numérique, cette étude contribue à une meilleure compréhension des enjeux de la gouvernance digitale dans le secteur de santé.

Les résultats de cette étude seront utilisés pour l'analyse du mémoire de master.

Profil de la chercheuse:

Cette étude est menée par Niamh Anoeck Mc Dermott, étudiante en M2 du programme Politics and Governance in the Digital Age à l'Université de Tartu.

La chercheuse étant de nationalité française, les entretiens se tiendront en français.

Détails de la participation

Votre participation à cette étude est entièrement volontaire. Vous êtes libre de refuser d'y participer ou de vous retirer à tout moment, sans avoir à fournir de justification et sans aucune conséquence.

Si vous choisissez de participer, il vous sera demandé de signer le formulaire de consentement éclairé figurant sur la page 5 de ce document. Vous pouvez retirer votre consentement à tout moment, y compris après l'entretien, sans justification et sans préjudice.

Si vous acceptez de participer, il vous sera demandé de :

1. Participer à un entretien semi-directif d'une durée maximale d'une heure, portant sur votre expérience professionnelle et vos perspectives en lien avec le sujet de recherche.
2. Autoriser l'enregistrement audio de l'entretien, exclusivement à des fins de transcription et d'analyse scientifique.
3. Indiquer vos préférences concernant les modalités de citation (anonymat, citation nominative ou autre), telles que définies dans l'accord de citation.

Gestion des données et confidentialité

À l'issue de l'entretien, une transcription sera réalisée à partir de l'enregistrement audio.

Les enregistrements et les transcriptions seront conservés dans un environnement numérique sécurisé, protégé par mot de passe, et accessibles uniquement à la chercheuse.

Aucune image ni donnée visuelle permettant l'identification (telles que des photographies de visages) ne sera collectée.

Les données recueillies seront utilisées exclusivement à des fins scientifiques dans le cadre de ce mémoire de master. Les informations citées dans la version finale respecteront strictement les préférences que vous aurez indiquées dans l'accord de citation.

ACCORD DE CITATION:

En tant que participant(e), je comprends que mes propos peuvent être directement cités. J'accepte donc que la chercheuse puisse (merci de cocher la case correspondante):

	Me citer directement en utilisant mon nom et mon rôle/affiliation, en lien avec les propos ou informations que j'ai communiqués.
	Me citer directement sans publier mon nom, mais en associant mes propos ou informations à mon affiliation.
	Me citer directement sans indiquer ni mon nom, ni mon rôle/affiliation avec les propos ou informations que j'ai communiqués.
	Je refuse toute citation directe de mes propos (transcription intégrale en notes de recherche uniquement).

Ce choix est modifiable à tout moment par simple demande écrite à la chercheuse.

Avvertissement:

Je comprends qu'en raison du nombre limité de participants et du périmètre restreint de la recherche, un anonymat absolu ne peut être garanti, notamment si j'opte pour l'option 3 relative aux modalités de citation.

Je comprends également que mon anonymat sera respecté conformément aux modalités que j'aurai choisies. Toutefois, en cas d'obligation légale ou de raison impérieuse et légitime nécessitant la levée partielle ou totale de l'anonymat, la chercheuse m'en informera préalablement, dans la mesure du possible, avant toute décision susceptible d'affecter la confidentialité de mes données.

Vos droits:

Conformément à la réglementation applicable en matière de protection des données, vous disposez des droits suivants :

Le droit d'accéder aux données personnelles vous concernant ;

Le droit de demander la rectification de toute information inexacte ou incomplète ;

Le droit de retirer votre consentement à tout moment, sans justification et sans conséquence.

Si vous estimez que vos droits n'ont pas été respectés dans le cadre de cette recherche, vous avez la possibilité d'introduire une réclamation auprès de l'Estonian Data Protection Inspectorate ou de saisir le tribunal compétent.

Pour toute question relative à cette étude, vous pouvez contacter :

Niamh Anoeck Mc Dermott – niamhmcdmrt@gmail.com

CONSENTEMENT ÉCLAIRÉ

Je soussigné(e), _____, accepte volontairement de participer à cette étude.

Je confirme que :

J'ai lu et compris la fiche d'information destinée aux participants.

Je consens à l'enregistrement audio et à l'utilisation de mes réponses conformément à l'accord de citation que j'ai sélectionné.

Je peux me retirer à tout moment sans pénalité.

Lieu: _____

Date: ___/___/2026

Signature: _____

The following email has been translated from French to English by the author of the thesis.

Translated Information sheet for participants and informed consent form

Provisional title of the study: Who Answers? Who Judges? Rethinking Accountability in Digitalised Public Services

Institute: University of Tartu, Estonia

Department: Johan Skytte Institute of Political Studies

Researcher: Niamh Anoeck Mc Dermott, Johan Skytte Institute of Political Studies,

email: niamhmcdmrt@gmail.com

Supervising Professor: Dr Kristina Muhhina, Johan Skytte Institute of Political Studies,

email: kristina.muhhina@ut.ee

Dear participant,

You are invited to take part in a research project being conducted as part of a Master's thesis. The researcher is a second-year student on the Master's programme in Politics and Governance in the Digital Age at the University of Tartu.

Before taking part in this interview, please read the information below carefully. If you agree to participate, please sign the informed consent form on page 5 of this document.

Objective of the study:

This research aims to analyse how responsibility is conceived and attributed by public sector actors and citizens when public services are digitised.

The case study focuses on Mon Espace Santé, the French government's digital health platform, to explore perceptions of responsibility in the context of the digitisation of public services.

By examining the expectations, experiences and tensions associated with this digital transition, this study contributes to a better understanding of the challenges of digital health services.

The results of this study will be used for the analysis in the master's thesis.

Researcher's profile:

This study is being conducted by Niamh Anoeck Mc Dermott, a master's student on the Politics and Governance in the Digital Age programme at the University of Tartu.

As the researcher is a French national, the interviews will be conducted in French.

Details of participation:

Your participation in this study is entirely voluntary. You are free to refuse to take part or to withdraw at any time, without having to provide a reason and without any consequences.

If you choose to participate, you will be asked to sign the informed consent form on page 5 of this document. You may withdraw your consent at any time, including after the interview, without giving a reason and without any adverse consequences.

If you agree to participate, you will be asked to:

1. Take part in a semi-structured interview lasting up to one hour, focusing on your professional experience and perspectives in relation to the research topic.
2. Consent to the audio recording of the interview, exclusively for the purposes of transcription and scientific analysis.
3. Indicate your preferences regarding citation arrangements (anonymity, naming, or other), as defined in the citation agreement.

Data management and confidentiality:

Following the interview, a transcript will be produced from the audio recording.

The recordings and transcripts will be stored in a secure, password-protected digital environment and will be accessible only to the researcher.

No images or visual data that could be used to identify you (such as photographs of faces) will be collected.

The data collected will be used exclusively for scientific purposes within the framework of this master's thesis. The information cited in the final version will strictly adhere to the preferences you have indicated in the citation agreement.

CITATION AGREEMENT:

As a participant, I understand that my comments may be quoted directly. I therefore agree that the researcher may (please tick the relevant box):

	Quote me directly, using my name and role/affiliation, in connection with the comments or information I have provided.
	Quote me directly without publishing my name but linking my comments or information to my affiliation.
	Quote me directly without indicating either my name or my role/affiliation in relation to the comments or information I have provided.
	I do not consent to any direct quotation of my comments (full transcripts may only be included in research notes).

This choice may be changed at any time by simply sending a written request to the researcher.

Disclaimer:

I understand that, due to the limited number of participants and the narrow scope of the research, absolute anonymity cannot be guaranteed, particularly if I opt for option 3 regarding citation methods.

I also understand that my anonymity will be respected in accordance with the terms I have chosen. However, in the event of a legal obligation or a compelling and legitimate reason requiring the partial or total lifting of anonymity, the researcher will inform me in advance, as far as possible, before any decision likely to affect the confidentiality of my data.

Your rights:

In accordance with the applicable data protection regulations, you have the following rights:

The right to access your personal data;

The right to request the rectification of any inaccurate or incomplete information;

The right to withdraw your consent at any time, without giving any reason and without any adverse consequences.

If you believe that your rights have not been respected in the context of this research, you may lodge a complaint with the Estonian Data Protection Inspectorate or bring the matter before the competent court.

If you have any questions regarding this study, please contact: Niamh Anoek Mc Dermott – niamhmcdmrt@gmail.com

INFORMED CONSENT

I, the undersigned, _____, voluntarily agree to take part in this study.

I confirm that:

I have read and understood the information sheet for participants.

I consent to the audio recording and use of my responses in accordance with the citation agreement I have selected.

I may withdraw at any time without penalty.

Location: _____

Date: ___/___/2026

Signature: _____

Appendix 5. Interview Guide

Introduction:

- Describe your role at this organisation, ministry, public office.
- How long have you been working there?

Information Stage:

- What information do you have to explain the most to users?
- Are they aware of its existence? How have they informed about its existence?
- What are the main difficulties in understanding digital public health tools? Is the platform well understood by users?

Debate Stage:

- When faced with a problem, where can questions be asked?
- What institutions or organisations are the most solicited when users want to contest the platform?

Consequence Stage:

- According to you, who has taken responsibility or should for MES? Do you believe the system itself is responsible for its functioning, or the public institution, health professionals? Perhaps the users are responsible?
- Have you observed changes in MES that followed exchanges between the actor and the users?

Open Questions for the Emergent Category:

- According to you, what needs to be changed to improve accountability in digital public health services?
- Is there any topic or issue that we have not addressed in this exchange, that you wish to address?

Appendix 6. Codebook

Codes were derived from Bovens' (2007) three-stage accountability framework and one emergent category. Sources coded: 10 interviews (public officials and civil society) and 6 official documents (laws, decrees, evaluative reports) in French.

No.	Code Label	Description of code, inclusion & exclusion criteria	Example quote
1.1	Direction of information	Describes who information is directed at (users vs forums) and what it covers (benefits vs governance/redress).	"Users will be notified of the new feature directly in their "My Health" profile" (Direction du Numérique en Santé, 2024).
1.2	Information relay	How information is passed (or not) from the actor to the citizen. Are they able to inform the citizen? Do the actors have all the information they need?	"It's often—in fact, it's very often—that we don't even get it sent to us; we only find out about it whilst supporting people" (Interview 1)
1.3	Accessibility of information	Describes the form, language, medium or equipment required.	"Respondents ranked the simplification of vocabulary as their primary recommendation, describing the current language as too technical and anxiety-inducing." (Consultation Report, 2025, p.5) & "They don't have a computer. They don't have a smartphone with internet access. So they don't even have access to [MES]" (Interview 9)
1.4	Simplification of information declared	How much information is shared with citizens and if elements omitted or simplified.	"The organisational structures that are set up for digital health, never in a million years should it be presented to users." (Interview 6)
1.5	Citizen pre-engagement withdrawal	Describes how citizens engage with, disengage from, or act upon information they receive.	"If I had something serious that I didn't want anyone to know about ... these days, there are so many data breaches that you can't really be sure it'll be protected." (Interview 10)
2.1	Timing of forum involvement	Describes when forum consultation occurs relative to design or implementation decisions.	"We were mobilised a bit after the event, once [MES] had been fully designed." (Interview 7) & "The concertation began in November 2024, more than two years after MES' national launch in January 2022." (Consultation Report, 2025)

2.2	Forum access to decision-maker	Describes whether forums can reach executive-level actors and the conditions of that access.	"We haven't managed to secure a single meeting with the Minister for Digital Affairs ... if they don't meet with us, it saves them from having to justify budget cuts." (Interview 3)
2.3	Weight of forum input	Describes how different forum voices are prioritised or ranked relative to each other.	"There is a user group comprising healthcare professionals whose views are given particular weight compared to other feedback." (Interview 8)
2.4	Formalisation of feedback processes	Describes whether input is institutionalised or discretionary.	"It's more of a mindset within the administration than an actual process that needs to be put into practice." (Interview 8)
2.5	Knowledge distribution across actors	Describes whether knowledge about governance is shared or fragmented.	"Between the [agencies], we no longer know who our point of contact is." (Interview 6)
3.1	Location of responsibility	Describes where accountability responsibility is placed.	"Digitalisation has effectively shifted the responsibility ... from the administration to the end user, the citizen, who is left alone in front of their screen." (Interview 7)
3.2	Correction verification process	Describes who is notified when a problem is marked resolved.	"They reply to us to confirm that the issue has been resolved, but there is no guarantee that the user has actually been contacted." (Interview 5) & "We're basically a state-funded initiative designed to make up for the state's failure" (Interview 4)
3.3	Forum enforcement capacity	Describes power of oversight bodies to impose sanctions.	"The Council of State can rule against the State, order the State to take certain actions, and the State does not necessarily do so." (Interview 3) & "The audit identified governance weaknesses, implementation challenges and structural issues that MES public communications did not disclose." (Court of Auditors, 2024)
3.4	Availability of support infrastructure	Describes presence, funding, or withdrawal of support services.	The France Service centres are seeing their budgets cut." (Interview 8)
3.5	Citizen post-failure abandonment	Describes what citizens do when they encounter problems.	"A person living alone gives up. They don't see the process through to the end." (Interview 2)
4.1	Disintermediation	Describes the removal or reintroduction of human	"Digital technology is always there to support people and never to

		intermediaries from administrative procedures as a consequence of digitalisation, and the implications of their absence for citizens' ability to navigate public services.	replace them, whenever it comes to replacing people, it's a danger for everyone" (Interview 2).
4.2	Dematerialisation as policy objective	Describes references to the reduction of physical materials, paper-based procedures or physical counters from administrative processes as a stated governance goal, and its consequences for service accessibility and accountability infrastructure.	"Since the Public Action 2022 plan there has been a massive shift towards digitalisation, at least when it comes to administrative procedures." (Interview 7)
4.3	Service criticality	Describes whether non-use blocks access to rights or care.	"If you don't use MES, you can still receive treatment." (Interview 3)
4.4	Jurisdictional reach	Describes which actors or risks fall inside/outside consequence mechanisms.	"The government needs to stop relying on private operators for this sort of tool ... we're talking about healthcare, which is an essential public service." (Interview 3) & "The law formally defines the state's accountability obligations in relation to MES and establishes the legal basis for information provision." (Law 2019-774)
4.5	Beliefs about consequences	Describes whether participants believe consequences are possible.	"Once you start providing a service like that ... you're offering to take responsibility ... you ensure the continuity of the service." (Interview 10)
5.1	Ambivalent evaluation	Speaker expresses mixed or contradictory evaluation.	"We go as far as providing support that enables them to use digital technology ... but mainly for basic service roles." (Interview 3)
5.2	Negative evaluation	Speaker evaluates as inadequate, dysfunctional, or illegitimate.	"The problem is that they reply to us to confirm that the issue has been resolved, but there is no guarantee that the user has actually been contacted." (Interview 5)
5.3	Positive evaluation	Speaker evaluates as adequate, functioning, or legitimate.	"There are constant improvements. Every month and a half, a new version is released." (Interview 8)

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18/05/2026