International Review of Public Policy

7:3 | 2025
Regular Issue

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Electronic version
URL: https://journals.openedition.org/irpp/5604
DOI: 10.4000/157ay
ISSN: 2706-6274

Publisher
International Public Policy Association

Electronic reference
Inke Torfs and Lieselot Danneels, "Decentralization in the Digital Era: The interplay between digitalization and local governance implications in Flanders", *International Review of Public Policy* [Online], 7:3 | 2025, Online since 01 October 2025, connection on 28 November 2025. URL: http://journals.openedition.org/irpp/5604 ; DOI: https://doi.org/10.4000/157ay

Decentralization in the Digital Era: The interplay between digitalization and local governance implications in Flanders

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The authors would like to express their gratitude to the 'Steunpunt Bestuurlijke Vernieuwing' for its invaluable support and particularly acknowledge the contributions from the project on decentralization. Special thanks go to Dr. Chesney Callens for the great collaboration, and to Prof. Dr. Bram Verschuere and Prof. Dr. Wouter Van Dooren for their constructive guidance and support.

Introduction

> "It is true contemporary technology permits decentralization; it also permits centralization. It depends on how you use the technology." – Noam Chomsky (2012)

1 Decentralization remains one of the most prominent institutional reforms on contemporary policy agendas, widely adopted since the 1980s (Fleurke et al., 2021; Kuhlmann & Wayenberg, 2016; Smoke, 2015b). By transferring tasks and responsibilities from central to local governments, decentralization aims to enhance governance quality (Camões, 2020; Schwab et al., 2017). It holds significant promise, but its implementation is a complex and demanding process for both central and local governments (Kuhlmann et al., 2025; Smoke, 2010). Despite a shared responsibility, decentralization is often designed and implemented through a centralist lens (Fiorillo et al., 2021; Houlberg & Ejersbo, 2020; Smoke, 2015a), resulting in unforeseen and unintended implications for local governments (Azis, 2013; Smoke, 2015a). These implications are particularly challenging given that whether or not decentralization

succeeds ultimately hinges on the ability of local governments to implement the newly assigned tasks and responsibilities (Kuhlmann & Wayenberg, 2016). Furthermore, supporting strategies (e.g., asymmetric decentralization, institutional consolidation) are typically also centrally designed and tend to reflect central government interests, rather than the operational realities at the local level. As such, they risk reinforcing the very implementation challenges they intend to resolve (De Roover et al., 2021; De Rynck & Janssens, 2023; Fleurke et al., 2021).

2 A promising yet underexplored strategy to strengthen local governments in implementing decentralization is digitalization (Gasco-Hernandez, 2024; Jonathan et al., 2024; Meijer & Bekkers, 2015). By transforming internal processes through digital technologies (Fischer et al., 2021), digitalization can enhance the resilience of local governments to both internal and external pressures (Edelmann et al., 2023; Gil-Garcia et al., 2018; Haug et al., 2023). Digitalization can be centrally initiated through platform-based support (Danneels & Viaene, 2025), or locally driven by the local governments themselves (Lindgren, 2024; Tangi et al., 2021). Despite its possibilities, insights on digitalization remain largely disconnected from scholarship on institutional reforms such as decentralization (Baier et al., 2023; Meijer & Löfgren, 2015). Studies on decentralization have typically focused on classifying different domains (i.e., political, fiscal, and administrative) and intensities (i.e., deconcentration, delegation, and devolution), with limited attention to the enabling potential of digitalization (Camões, 2020; Schneider, 2003). Conversely, studies on digitalization do engage with institutional dynamics but tend to focus on factors facilitating or impeding digitalization rather than exploring its potential as a driver of institutional reform (Danial et al., 2022; Danneels & Van Impe, 2023; Kuhlmann & Heuberger, 2021; Xiao et al., 2022).

3 The aim of this article is to explore the link between digitalization and decentralization, specifically exploring how digitalization can empower local governments in implementing decentralization. The central research question is: *How can digitalization empower Flemish local governments in navigating the implementation of decentralization?* To address this question, we employ a theoretical framework that integrates Technology Affordances and Constraints Theory (Majchrzak & Markus, 2012; Volkoff & Strong, 2017) with the typology of technological perceptions (Goldkuhl, 2013; Orlikowski & Iacono, 2001). This framework enables us to examine the impact of digitalization on decentralization in three sequential steps, each of which also addresses shortcomings in existing literature. First, we identify the underlying implications that local governments associate with implementing decentralization. Second, we examine the potential that local governments attribute to digitalization in addressing these implications. Third, we interpret the view that local governments adopt to perceive digital technologies within their organizational context.

4 Our empirical focus is on Flemish local governments, chosen due to their extensive experience with decentralization reforms (De Roover et al., 2021) and ongoing initiatives to advance digitalization (OECD, 2020). The study follows a qualitative multiple case study design, enabling an in-depth exploration of the relationship between digitalization and decentralization (Lune & Berg, 2017). Data collection involved 36 focus groups with nearly 250 participants, complemented by 11 expert interviews.

5 The findings reveal that: (1) local governments primarily associate decentralization with increased demands on their capacities, (2) local governments recognize the potential of digitalization to enhance administrative and policy capacities through its affordances, and (3) local governments predominantly adopt a tool view in their perception of digital technologies.

6 While the findings indicate that local governments recognize digitalization as a potential enabler for implementing decentralization, their approach remains largely shaped by a persistent form of techno-optimism. This is evident in their tendency to defer responsibility for overcoming digitalization challenges to higher levels of government, thereby externalizing their constraints. Additionally, their prevailing reliance on a tool view of digital technologies suggests a perception of digitalization as a collection of standalone instruments, overlooking its socio-technical character. These findings highlight the need for more comprehensive, context-sensitive, and institutionally embedded support to steer local digitalization efforts. Without such support, local governments risk becoming increasingly vulnerable to the pitfalls of techno-optimism and overly dependent on a fragmented and often underperforming software supplier landscape – as is currently the case in the Flemish context.

7 The structure of this article is as follows: Section 2 provides a deeper understanding of decentralization and digitalization as conceptual foundations and introduces the theoretical framework guiding the research. Section 3 outlines the methodology, including the case context, selection criteria, and procedures for data collection and analysis. Section 4 presents the empirical analysis, followed by a comprehensive discussion in Section 5 which reflects on the findings and elaborates on the theoretical contributions, practical implications, and limitations of the research. Finally, Section 6 concludes the research.

Background

Decentralization: central ambitions and local realities

8 Decentralization is an institutional reform commonly defined as *"the transfer of authority, power, and/or resources from a central to a more local level of government"* (Schneider, 2003; Schwab et al., 2017). It can occur across different domains (i.e., political, fiscal, and administrative) and manifest with varying intensity (i.e., deconcentration, delegation, and devolution) (Camões, 2020; Schneider, 2003). Usually, decentralization is driven by the ambition to enhance local autonomy and improve governance quality by bringing decision-making closer to citizens (De Roover et al., 2021; Kuhlmann & Wayenberg, 2016; Smoke, 2015b).

9 Whereas the academic debate on decentralization has traditionally focused on its outcomes, considerably less attention has been devoted to the implications arising from its implementation (e.g., De Roover et al., 2021; Fleurke et al., 2021). Nonetheless, there is broad consensus among scholars that implementing decentralization is a complex and demanding process for all levels of government (Kuhlmann et al., 2025; Smoke, 2010). While central governments are tasked with steering the reform and ensuring strategic coherence, local governments are expected to rapidly develop the structure and capacity to absorb and execute the transferred responsibilities (Azis, 2013; Kuhlmann & Wayenberg, 2016; Smoke, 2015a).

10 Despite this dual responsibility, decentralization is often designed and analyzed from a centralist perspective (Fiorillo et al., 2021; Houlberg & Ejersbo, 2020; Smoke, 2015a). This orientation introduces both analytical blind spots and practical limitations. First, the prevailing central orientation tends to overlook the operational realities and contextual complexities that local governments face in implementing decentralization. Although local governments are acknowledged as critical actors in this process (Azis, 2013; Smoke, 2015a), empirical insights into the practical implications they encounter remain scarce (De Roover et al., 2021; De Rynck & Janssens, 2023; Fleurke et al., 2021). Consequently, uncertainty persists regarding their capacity and commitment to implement decentralization effectively (Callens et al., 2022; Smoke, 2015a). Second, centrally designed strategies intended to support local implementation may unintentionally intensify the very problems they intend to resolve. An illustrative example is municipal amalgamation: while such reform can enhance coordination and economies of scale, they often disrupt local service agendas, administrative routines, and citizen-government relations (Devas & Delay, 2006; Galizzi et al., 2023). In certain instances, these strategies may even undermine the very aim of decentralization: bringing policymaking closer to citizens.

11 Taken together, these observations highlight the need for more empirically grounded understandings of the implications local governments encounter in implementing decentralization. Moreover, they point to the importance of exploring alternative or complementary strategies that address the implications while remaining aligned with the core objectives of decentralization.

Digitalization: a promising yet ambiguous strategy

12 Digitalization emerges as a promising yet insufficiently explored strategy to empower local governments in navigating the implementation of decentralization (Gasco-Hernandez, 2024; Jonathan et al., 2024; Meijer & Bekkers, 2015). Digitalization is generally understood as the organizational and operational change resulting from the application of digital technologies (Fischer et al., 2021). These technologies encompass a spectrum of instruments, models, systems, and processes employed for storing, communicating, using and processing information (Orlikowski & Iacono, 2001; Vial, 2019).

13 Governments increasingly leverage digitalization to enhance efficiency, productivity, and collaboration (Cordella & Tempini, 2015; Zachari, 2022). At the local level in particular, digitalization holds significant promise for streamlining internal workflows, facilitating data-informed decision-making, and improving the quality and accessibility of public services (Hanelt et al., 2021; Haug et al., 2023; Torfs et al., 2023). By reconfiguring organizational structures and routines, digitalization may also bolster the resilience of local governments to both internal and external pressures (Edelmann et al., 2023; Gil-Garcia et al., 2018; Haug et al., 2023). However, digitalization also entails considerable risks and limitations. Concerns relate to cybersecurity and data privacy, as public institutions are frequent targets of cyberattacks that may result in data breaches, financial harm, or loss of public trust (Albahar, 2019). Additionally, overreliance on digital technologies may introduce systemic vulnerabilities, such as service disruptions stemming from technological failures or obsolescence (Ciarli et al., 2021; Zachari, 2022). As such, digitalization presents both promising affordances and

structural constraints, suggesting that its application should not be regarded as an inherently beneficial or universally applicable solution.

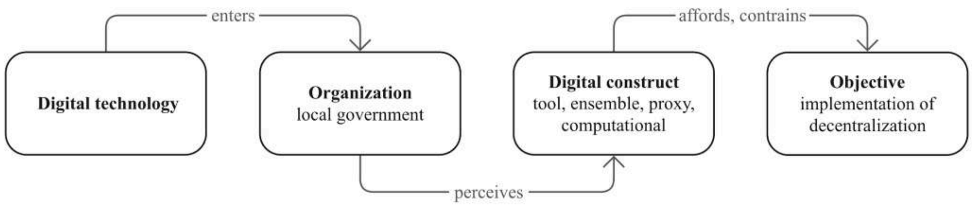
14 This research focuses on how digitalization unfolds its potential in the specific context of decentralization. Although academic interest in the intersection between digitalization and decentralization is growing, empirical insights into how these processes interact at the local level remain limited (Kuhlmann & Bogumil, 2021; Marienfeldt et al., 2024). Existing research on digitalization predominantly addresses central governments or the public sector at large, emphasizing themes such as interoperability, stakeholder engagement, and transparency (Mergel et al., 2019). While these contributions offer valuable perspectives, their relevance to subnational governance contexts is constrained as local governments operate under different infrastructural, institutional, and administrative conditions (Danneels & Van Impe, 2023; Kuhlmann & Heuberger, 2021; Xiao et al., 2022). Moreover, existing empirical evidence regarding the extent to which local governments can harness the potential of digitalization remains inconclusive and context-dependent (Danial et al., 2022; Danneels & Van Impe, 2023; Kuhlmann & Heuberger, 2021).

Theoretical framework

15 To systematically examine how digitalization may empower or impede local governments in implementing decentralization, this study draws on the Technology Affordances and Constraints Theory (TACT) (Majchrzak & Markus, 2012; Volkoff & Strong, 2017) and Orlikowski and Iacono’s typology of technological perceptions (Goldkuhl, 2013; Orlikowski & Iacono, 2001). Both approaches originate in the information systems literature and share a central concern with the role of digital technology. Three main reasons explain why their integration is valuable (Busch, 2024; Orlikowski, 2000; Torfs, 2025b; Venkatesh et al., 2016): First, they conceptualize digitalization in ways that highlight its reciprocal relationship with broader socio-organizational dynamics. Second, they enable an investigation at the organizational and institutional levels, aligning with the level of decentralization. Third, they provide a dynamic lens that captures iterative processes and longitudinal change, rather than reducing the analysis to a static point in time.

16 Figure 1 provides a visual representation of this integrated theoretical framework. It depicts the process through which the impact of digitalization on decentralization unfolds: When digital technologies are introduced into an organization, they are interpreted through organizational frames and embedded practices, thereby becoming digital constructs. These constructs, in turn, generate affordances and constraints that shape the organization's ability to pursue its objectives—in this case, the implementation of decentralization.

Figure 1: Visual representation of the theoretical framework



Source: the Authors

17 TACT posits that **digital technologies** acquire meaning through their embeddedness in organizational routines, norms, and practices (Majchrzak & Markus, 2012). As such, the theory considers digital technologies as dynamic elements in a socio-technical environment shaped by the perception in the **organization** (de Vries et al., 2018; Edelmann et al., 2023; Fountain, 2001). To systematically account for this interpretive dimension, we enrich TACT with Orlikowski and Iacono's typology of technological perceptions. This typology offers a structured lens to examine how digital technologies are perceived within organizations, and how these perceptions shape a digital construct (Goldkuhl, 2013; Orlikowski & Iacono, 2001). The typology identifies four dominant perspectives: the tool view (technology as a neutral supportive instrument), the computational view (technology as a way to process information using predefined algorithms, codes, and models), the proxy view (technology as a surrogate for human action), and the ensemble view (technology as a dynamic component embedded within a larger socio-technical system) (Goldkuhl, 2013; Harindranath & Sein, 2007; Orlikowski & Iacono, 2001). These perspectives facilitate a more nuanced understanding of digital technologies within organizations, recognizing their multifaceted, evolving, and context-dependent nature (Aanestad et al., 2024; Lenton et al., 2024).

18 Once a digital technology is interpreted and embedded in practice, TACT refers to the resulting outcome as a **digital construct**. A digital construct constitutes the potential for action: it affords and constrains an organization's pursuit of specific **objectives** (Strong et al., 2014; Volkoff & Strong, 2017). Affordances denote the actionable opportunities offered by technologies, including enhanced efficiency, transparency, and responsiveness (Goldkuhl, 2020; Majchrzak & Markus, 2012). Constraints, conversely, refer to the ways in which these technologies may hinder the attainment of objectives, for instance, due to technical, organizational, or cognitive limitations (Majchrzak & Markus, 2012).

19 By integrating these theoretical perspectives, our framework provides a balanced and nuanced approach that avoids both techno-optimism and overly deterministic assumptions about the role of digitalization. It enables a context-sensitive analysis of how digitalization can either empower or constrain local governments in their implementation of decentralization.

20 Beyond its analytical utility, applying this framework addresses two notable theoretical shortcomings. First, our use of TACT and the typology of technological perceptions extends their typical domains of application. While both are well-established in information systems and private sector research, their use in public administration remains relatively underdeveloped. Moreover, these frameworks are often applied to specific technologies, such as artificial intelligence or robotic process automation,

within a ‘man versus machine’ narrative (Choi & Gil-Garcia, 2022; Lindgren et al., 2021). Our study broadens this focus by exploring their relevance to wider institutional reforms, such as decentralization (Meijer & Löfgren, 2015). Second, rather than merely transposing two existing frameworks into a new empirical setting, we combine them in an innovative way. By integrating TACT with the typology of technological perceptions, we illustrate how complementary strands of information systems theory can be leveraged to better understand complex public sector reforms. This contributes to the expanding literature that adapts and extends information systems insights for the study of public administration (Torfs, 2025b).

Methodology

21 The central research question is addressed through a qualitative case study conducted in Flanders. The preference for qualitative research is motivated by its interpretative nature, which facilitates profound insights into complex phenomena such as decentralization and digitalization from the perspective of local governments (Creswell & Poth, 2023). The specific approach of a multiple case study is adopted due to its efficacy in conducting in-depth analyses of a limited number of units. This approach allows for a nuanced and comprehensive understanding of the relationship between digitalization and decentralization (Lune & Berg, 2017; Seawright & Gerring, 2008).

Case context

22 Flanders, the northern region of Belgium, consists of 285 local governments. Most of these local governments (83 percent) have fewer than 30,000 inhabitants while four have populations exceeding 100,000 (Statbel, 2024). The population sizes range from only 76 inhabitants in the smallest local government to nearly 550,000 in the largest. This variation makes uniform management of all local governments a complex task, as there are significant differences in administrative scale and capacity (Van Orshoven & De Peuter, 2015). Moreover, Flemish local governments also differ in type. According to the Belfius typology, there are 16 clusters of local governments (e.g., coastal versus agricultural), each prioritizing policies tailored to their specific local needs (Belfius, 2007).

23 Since the state reform of 2001, the Flemish government has held responsibility for domestic governance, overseeing all local and provincial administrations. As part of this responsibility, the Flemish government has decentralized various policies to local governments, primarily to enhance local autonomy (De Roover et al., 2021; De Rynck & Janssens, 2023). The current Flemish government (2024-2029) plans to continue this trajectory, though Flemish local governments increasingly question both the desirability and feasibility of further decentralization (Callens et al., 2022; De Rynck & Janssens, 2023). Despite various digital initiatives, such as transitioning from paper to digital processes and streamlining workflows, Flemish local governments have yet to strategically leverage digitalization to navigate the implementation of decentralization (Callens et al., 2022). While progress has been made, substantial potential remains unexploited (Danneels & Van Impe, 2023).

Case selection

24 In our case selection, we deliberately focused on Flemish local governments. This geographic and institutional delineation ensures a shared regulatory and administrative context, characterized by comparable competences, responsibilities, and policy frameworks. Such a controlled setting allows us to keep a number of contextual variables constant while systematically introducing variation on key explanatory dimensions. In line with this rationale, we employed a most different systems design (MDSD), guided by three core selection parameters, as outlined in Table 1 (Seawright & Gerring, 2008; Yin, 2018).

25 The first parameter is **government size**, a dimension widely associated with both the feasibility of decentralization and digitalization (Debeljak & Dečman, 2022; Mergel et al., 2019). Government size was operationalized through population figures, in line with established practices in Flemish public administration research that often uses population size as a proxy for the size of local governments (e.g., Drew & Dollery, 2014). Accordingly, we selected local governments representing three categories: small (<30,000 inhabitants), medium-sized (30,000–100,000), and large (>100,000). The second parameter is **government type**, chosen in light of empirical evidence indicating that socio-economic, cultural, and financial characteristics of local governments can affect the feasibility of decentralization (Callens et al., 2022). Government type was operationalized using the Belfius-cluster typology, which classifies Flemish local governments based on criteria such as urbanization level and socio-economic profile, allowing to understand local contextual variation (Belfius, 2007). The third parameter is **digital maturity**, selected for its relevance to both the perception of digital technologies (Orlikowski & Iacono, 2001) and potential of digitalization (Van Impe & Danneels, 2024). Digital maturity was operationalized using the *i-Monitor*[1], a diagnostic instrument developed by the Flemish government to assess the digital maturity of local governments across several e-government domains (Flemish Government & VVSG, 2016).

26 In sum, our case selection includes local governments that exhibit deliberate variation in government size, type, and digital maturity, yet remain embedded in a shared Flemish context. This design enables us to control for structural conditions while capturing meaningful differences in relevant explanatory variables. Consequently, we argue that the insights derived from these nine cases are analytically generalizable to the broader population of Flemish local governments.

Table 1: Selected local governments

	Government size (population size)	Government type (Belfius-cluster)	Digital maturity (i-Monitor)
Local government A	small	rural	2
Local government B	small	rural	3
Local government C	small	rural	4
Local government D	medium	central	4
Local government E	large	big	3
Local government F	small	coastal	2
Local government G	small	suburban	2
Local government H	medium	central	3
Local government I	small	suburban	3

Source: the Authors

Data collection

27 The data collection was carried out in two phases. The first phase consisted of focus groups designed to identify how local governments assess the desirability and feasibility of further decentralization. Questions were formulated to discuss both positive and negative implications of decentralization and to reflect on opportunities to maximize benefits while mitigating challenges.

28 Data were gathered in the nine selected local governments (A-I) through 36 focus groups with nearly 250 participants. Each local government hosted four focus groups: one general group with the mayor, alderman, and members of the management team to capture a broad range of perspectives, and three topic-specific groups to elicit more nuanced insights into the opportunities and challenges related to the implications of decentralization. All focus groups were held over a two-month period, with each session lasting between 60 and 90 minutes. Detailed reports, summarizing the key views and perceptions of participants, were prepared from the notes and recordings of the sessions.

Table 2: Focus groups

	Focus group 1 general	Focus group 2 policy specific	Focus group 3 policy specific	Focus group 4 policy specific
Local government A	10/02/2022	10/02/2022	11/02/2022	15/02/2022
Local government B	07/02/2022	15/02/2022	24/02/2022	24/02/2022
Local government C	01/03/2022	09/02/2022	09/02/2022	16/02/2022
Local government D	28/01/2022	28/01/2022	28/01/2022	28/01/2022
Local government E	23/02/2022	23/02/2022	25/01/2022	07/03/2022
Local government F	/	14/02/2022	14/02/2022	23/02/2022
Local government G	09/02/2022	15/02/2022	17/02/2022	22/02/2022
Local government H	09/03/2022	01/02/2022	03/02/2022	07/02/2022
Local government I	21/02/2022	14/02/2022	21/02/2022	24/02/2022

Source: the Authors

29 The second phase consisted of expert interviews to identify how local governments perceive the potential of digitalization in addressing the implications of decentralization. The interviews began with general questions on the current role and perceived potential of digitalization, followed by more specific questions on how digitalization could support responses to the implications of decentralization identified during the focus groups.

30 Data were collected in three of the nine local governments (B, D, and E) through eleven semi-structured interviews with experts on local government digitalization, as presented in Table 3 (Yin, 2018). To qualify as an expert, individuals had to represent a digitally proficient local government, defined as scoring three or higher on the i-Monitor (Flemish Government & VVSG, 2016). The interviewees included six department heads responsible for various policy areas, whose insights were critical for understanding the strategic potential of digitalization (Feeney et al., 2020) and five IT specialists with direct experience in applying digital technologies. The number of respondents varied per local government, depending on the availability and willingness of experts to participate. The interviews were held over three months and lasted between 40 and 70 minutes. They were conducted and recorded via MS Teams and subsequently transcribed using MS Word.

Table 3: Interviews

	Function	Municipality	Date	Duration
Respondent 1	Department head ICT	D	30/09/2022	49 minutes
Respondent 2	General Director	D	11/10/2022	50 minutes
Respondent 3	Department head Applications	D	13/10/2022	40 minutes
Respondent 4	Staff member General Director	E	28/10/2022	41 minutes
Respondent 5	Department head Spatial Planning	D	30/10/2022	57 minutes
Respondent 6	Department head Housing	B	14/11/2022	52 minutes
Respondent 7	Department head Welfare	D	25/11/2022	40 minutes
Respondent 8	Department head ICT	B	28/11/2022	41 minutes
Respondent 9	Department head Welfare	B	29/11/2022	70 minutes
Respondent 10	Staff member General Director	E	05/12/2022	58 minutes
Respondent 11	Policy advisor	B	01/12/2022	57 minutes

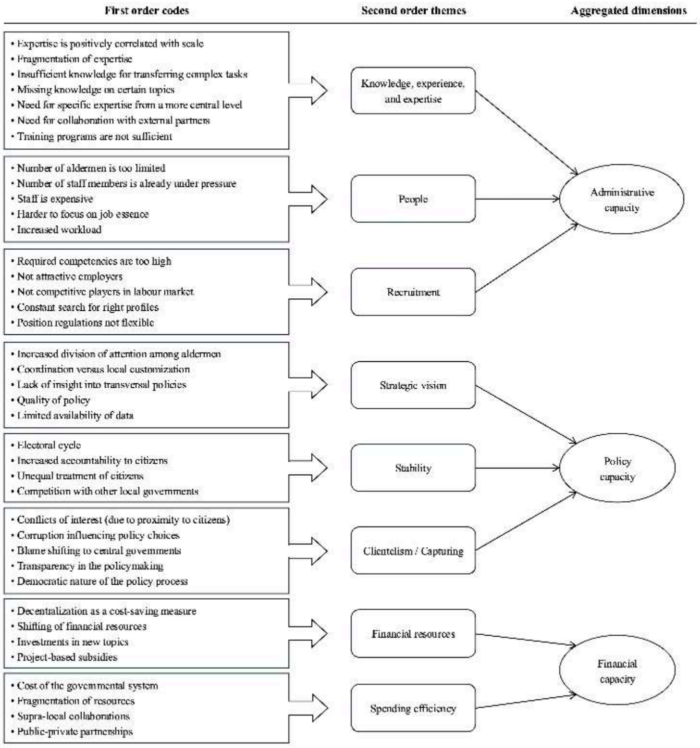
Source: the Authors

Data analysis

31 The data analysis was conducted in three stages, aligned with the components of the theoretical framework (Section 2.3). In the first stage, we identified the underlying implications that local governments associate with implementing decentralization. This stage followed an inductive approach: transcripts from the focus groups were coded to capture a broad range of first-order concepts reflecting perceived implications. These first-order codes were subsequently clustered into second-order themes, enabling the identification of three overarching dimensions (Gehman et al., 2018; Gioia, 2021): administrative, financial, and policy capacity. This aggregation process is illustrated in Figure 2. In the second stage, we examined the potential that local governments attribute to digitalization in addressing the identified implications. The three capacity dimensions derived from the first stage were used as a guiding structure for the coding process in this stage. In the third stage, we interpreted how local governments adopt digital technologies. This stage followed a deductive approach, drawing on the typology of technology perceptions to code the interview transcripts.

32 For all three stages, data were systematically analyzed using NVivo 14 software. Coding categories were iteratively refined through repeated engagement with the original data in order to ensure analytical validity (Yin, 2018). To maintain analytical rigor, the coding process was conducted by a single researcher and reviewed periodically by a second researcher with domain expertise in decentralization and digitalization. This review process enabled iterative adjustments to the coding framework, thereby enhancing the robustness and validity of the findings.

Figure 2: Coding structure



Source: the Authors

Analysis

Part 1: Underlying implications of decentralization

33 In this first part of the analysis, we identify the underlying implications that local governments associate with implementing decentralization. The focus group data reveal that local governments consider the capacity to manage decentralized responsibilities as the primary implication of implementing decentralization. This capacity relies on three components: administrative, financial, and policy capacity.

Administrative capacity

34 First, respondents emphasize administrative capacity as a precondition for managing the decentralized responsibilities. However, they also express concern that existing local workforces are inadequately equipped to meet these increased administrative demands. They stress that many local governments are already operating at the limits of their administrative capacity, which makes decentralization a risk for exacerbating **staffing shortages**. These shortages could have serious consequences: increased workload may negatively affect employee well-being, while prioritizing certain tasks could undermine service quality. Smaller local governments are particularly vulnerable to this challenge as they often rely on single-person departments, making the continuity of essential services precarious: "*The strength of administrations in small local governments can quickly change when someone is absent.*" (local government F).

35 Respondents' concerns also extend to the retention of **specialized knowledge and expertise**. They anticipate that decentralization will necessitate a broader skill set, despite the already demanding nature of employees' roles: "*You cannot expect someone to be a good pedagogue, controller, negotiator, policymaker, and financer all at once.*" (local government F). There is concern that rising expectations may undervalue existing expertise and lead to a loss of specialized knowledge: "*There is a danger that the specificity of various tasks, along with the associated expertise and quality, will be lost if decentralization occurs.*" (local government B).

36 Moreover, respondents do not see immediate solutions to these challenges, given the existing **recruitment difficulties**: "*If certain individuals leave, it often takes years to find someone with the same capabilities*" (local government F). They refer to the fact that many local governments already struggle to recruit suitable candidates, partly due to high expectations. They predict that decentralization will further complicate these difficulties by increasing the complexity and variety of tasks: "*They have to be idealists to want to work for local governments*" (local government H). Consequently, even if an increase in administrative capacity is considered when planning for decentralization, respondents do not expect this to materialize in practice.

Financial capacity

37 Second, respondents highlight financial capacity as a necessary condition for enabling sustainable investments in decentralized tasks and responsibilities. However, they also unanimously report that current **financial resources** are insufficient to meet the expanded demands associated with decentralization: "*Decentralization will require the allocation of more resources, resources that are already lacking*" (local government E). Drawing from past experiences, they fear that the Flemish government may use decentralization as a cost-saving measure: "*Flanders often offloads tasks via decentralization without providing sufficient resources, assuming local governments will make the investments.*" (local government D). Therefore, they are worried that decentralization might compel local governments to cut services or raise taxes.

38 Respondents from smaller local governments are particularly concerned that decentralization could lead to **inefficient resource allocation**. They worry that decentralization might lead to the fragmentation of resources across smaller, less efficient scales, leaving individual local governments with insufficient funding to adequately support the transferred tasks: "*The efficiency gains achieved through central organization are at risk if each government becomes responsible for its own services.*" (local government A).

Policy capacity

39 Third, respondents stress the importance of policy capacity for developing coherent and strategic policy responses within the decentralized domains. However, they express concern that local governments lack the requisite knowledge and expertise to engage effectively within the complex nature of **strategic policymaking** in these areas. Respondents from smaller and medium-sized local governments predominantly cite the fragmentation of attention, noting that the limited number of aldermen often juggle multiple responsibilities. Conversely, respondents from larger local governments expect citizens to have higher expectations and demand more detailed explanations of

local policies: "*Employees will no longer be able to hide behind central decisions. They must understand the regulations and the philosophy behind them to provide answers to citizens.*" (local government E).

40 Furthermore, respondents fear that decentralization could lead to more **policy instability**, as they assume that Flemish local governments are more vulnerable to the effects of electoral cycles compared to the central government: "*At the Flemish level, more parties are involved in policy, and decisions are made more through consensus or negotiations.*" (local government H).

41 Lastly, decentralization brings governance closer to citizens. With the reduced distance between policy and public, respondents believe decentralization might heighten the risk of **clientelism**. They argue that local officials may face difficulties in distinguishing between general and individual interests, potentially leading to conflicts of interest when handling decentralized responsibilities. Respondents provided examples of questionable practices that could become more prevalent with decentralization: "*Sometimes certain charges are deliberately not applied when politicians know the owners of vacant properties.*" (local government G).

Part 2: Potential of digitalization

42 In this second part of the analysis, we examine the potential that local governments attribute to digitalization in addressing the identified implications. The interview data indicate that local governments primarily recognize the potential of digitalization through its affordances for enhancing administrative and policy capacities. The findings are summarized in Table 4, organized by capacity type and categorized as either affordance (A) or constraint (C).

Table 4: Potential of digitalization linked to anticipated decentralization implications

Decentralization implications	Potential of digitalization
Administrative capacity	
• Staffing shortages • Shortage specialized knowledge/expertise • Recruitment difficulties	• Increased operational efficiency (A) • Leveraged expertise and specialized knowledge (A) • More in-house IT specialists (C) • Readiness and willingness to adopt change (C)
Financial capacity	
• Limited financial strength/resources • Efficiency losses	• Long-term potential for savings (A) • Enhanced collaboration (A) • Required upfront investments (C) • Vendor lock-in (C)
Policy capacity	
• Lack of strategic vision • Policy instability • Clientelism	• Improved quality of decision-making (A) • Enhanced transparency and democratic nature (A) • Renewed regulatory framework (C)

Source: the Authors

Administrative capacity

43 Respondents identify several affordances of digitalization that can strengthen administrative capacity, particularly through enhanced internal operations and the redefinition of employee roles. With regard to the internal operations, respondents emphasize optimized workflows and increased **operational efficiency** as primary affordances: "*It is no longer feasible to perform our current set of tasks in the ways we were used to before digital technologies. From that perspective, one could indeed argue there is a gain in capacity.*" (respondent 6). Regarding the employees, respondents believe that digitalization enables employees to focus on core responsibilities rather than routine administrative tasks: "*Above all, we aim for digital technologies to enable employees to focus more on their core responsibilities.*" (respondent 4). For example, local government D developed an application enabling citizens to request documents online, reducing the workload of front-office employees who can now allocate the time saved to more complex cases. Respondents emphasized that this transition from administrative to substantive work enhances work quality by leveraging employees' **expertise and specialized knowledge** more effectively: "*There can be a shift from process knowledge to in-depth knowledge about the subject matter.*" (respondent 1). For example, one local government simplified its grant application process, enabling employees to better support organizations seeking grants, rather than getting bogged down by administrative procedures.

44 Despite the perceived affordances, respondents also identify significant constraints. A primary concern is that the administrative capacity freed up through digitalization is quickly reallocated: "*Digital technologies might save two positions at the front desk, but they necessitate hiring an additional project manager.*" (respondent 5). While digitalization can indeed reduce staffing needs in certain areas, respondents stress that maintaining these digital systems requires dedicated **in-house digital expertise**: "*There must always be someone to monitor and maintain the systems; someone has to keep an eye on it.*" (respondent 5).

45 Finally, organizational **readiness and willingness to change** also emerge as constraints. Public servants must be open to the changes that digitalization entails: "*Once you digitize, you will change the situation.*" (respondent 1). However, this readiness is not evenly distributed across the organization: "*They are experts in their field, but not in IT.*" (respondent 5). Initial resistance is a recurring feature in implementing (digital) change but can be mitigated through robust change management: "*Initially, we often heard that their equipment was a shovel and a van, not a tablet. Now they take pride in being able to work with it.*" (respondent 2). Nonetheless, in some instances, digitalization encountered such entrenched resistance or structural misalignment that a full reversal proved necessary.

46 Taken together, these findings challenge the traditional belief that digitalization leads to workforce reductions. Instead, respondents highlight that technologies reduce the need for additional hiring in a demanding environment. As one respondent concluded: "*We accomplish more than ever before, despite having the same number of employees. The number of employees did not decrease, but our efficiency improved thanks to the integration of digital technologies.*" (respondent 8).

Financial capacity

47 Respondents express divergent views regarding the financial consequences of digitalization. They acknowledge the **potential for savings** on the long-term, but they also emphasize the substantial **upfront investments** required: "*Digitization brings about savings, but it also entails new investments.*" (respondent 1). The anticipated return on investment remains a point of contention. Optimism about cost savings is particularly prominent among medium and large local governments, where respondents believe the financial benefits of digitalization will eventually outweigh the initial costs: *"If we want to achieve more with fewer resources, digital technologies offer a solution."* (respondent 2). For instance, one local government is considering the purchase of a scan vehicle for issuing fines for illegal parking. Despite the initial expense, they anticipate that the revenue from fines will offset the cost over time. Conversely, respondents from smaller local governments tend to adopt a more cautious stance, arguing that ongoing costs may exceed potential savings: "*I do not believe digital technologies will lead to long-term savings. It is an ongoing expense."* (respondent 8). For example, one local government acquired tablets through a subsidy but is already concerned about future replacement costs once the subsidy expires.

48 Beyond differing expectations regarding the financial consequences of future digitalization, respondents underscore that the most pressing financial implications originate from existing systems rather than forthcoming digitalization. They believe that cost-saving opportunities lie primarily in **enhanced collaboration.** Internally, this entails the elimination of departmental silos and the consolidation of redundant applications. Externally, respondents highlight the importance of intermunicipal cooperation, particularly in the joint procurement of software and the development of shared technological solutions. For example, local government D consolidated seven separate registration tools for leisure activities into a single application, thereby reducing internal maintenance costs. In addition, by reusing the source code of an application developed by another local government, they were able to significantly lower external development expenses.

49 However, respondents also point to cost-saving challenges, most notably the oligopolistic nature of the public sector software market in Flanders: "*If we want to expand the use of digital technologies, we have no choice in supplier.*" (respondent 6). This high degree of market concentration fosters **vendor lock-in** and inflated pricing, severely constraining cost-effective decision-making. Moreover, respondents suggest that such dependency generates fragmented digital architectures with poor interoperability, potentially undermining digitalization's long-term financial benefits.

Policy capacity

50 Respondents see multiple affordances in digitalization to increase policy capacity. Most respondents agree that digitalization can profoundly impact local government policy-making processes: "*Digital technologies can support the determination of the objectives.*" (respondent 5). This influence is largely attributed to increased availability and accessibility of objective data, which respondents believe to provide valuable insights for policy development and improved **decisions-making quality**: "*If you can access and combine data effectively, you can gain surprising insights.*" (respondent 3). This objective data availability is expected to facilitate more informed and controlled decision-

making: "*With data at your disposal, decision-making becomes more straightforward.*" (respondent 3). Respondents from the most digitally advanced governments even suggest that data could underpin predictive modelling, developing simulations to forecast policy impact. For instance, simulations within the mobility department can predict traffic flow changes in response to proposed developments, such as a new residential area. However, department heads emphasize that digitalization cannot replace domain expertise, as human interpretation and interaction remain essential, especially at the local level: "*In finance, robotization has been successful because it deals with straightforward calculations, where 1 + 1 always equals 2. In spatial planning, we aim to make 1 + 1 equal 3, and a robot cannot achieve that.*" (respondent 5).

51 Furthermore, many respondents assert that objective data can reduce reliance on subjective judgment in decision-making, enhancing the **transparency and democratic nature of governance**: "*I believe digital technologies enhance decision transparency and consistency.*" (respondent 4). They argue that the scope for discretionary choices diminishes in digitalized environments, as decisions must align with predefined, data-driven criteria. This shift is also seen as a means to foster more **consistent and equitable governance**.

52 However, respondents also highlight constraints requiring **regulatory framework changes**. On the one hand, local government's (informal) rules and procedures cannot always be translated into digital formats: "*Currently, many of our regulations are too complex to be fully integrated into digital systems.*" (respondent 10). On the other hand, Flemish local governments operate within the constraining rules and conditions of their multi-level governance context: "*The regulations and stringent conditions at times pose significant obstacles and make digital solutions very difficult.*" (respondent 1).

Part 3: Perceptions of digital technology

53 In this third part of the analysis, we interpret the view that local governments adopt to perceive digital technologies within their organizational context. The interview data – as evidenced by the illustrative quotes presented in Appendix 1 – demonstrate that although local governments perceive digital technologies in multiple ways, there is a dominant view.

54 The findings show that local governments predominantly view digital technology as a **tool** to enhance the efficiency and effectiveness of local government operations. In terms of administrative capacity, digital technologies are primarily framed as instruments for streamlining routine tasks, allowing employees to concentrate on more complex and substantive aspects of their roles. This is exemplified in statements such as: "*The goal of digitization and automation should be to support core tasks, enabling employees to apply their expertise more effectively.*" (respondent 4). In terms of policy capacity, digital technologies are valued for their potential to facilitate evidence-based decision-making through enhanced data access and analytical tools: "*Digital technologies help to align government actions, with its strategic focus and objectives.*" (respondent 5). However, even within this context, technology is viewed as a neutral instrument rather than an active force: "*Technology itself does not shape policy, but access to data and dashboards is a crucial means for informed decision-making, such as setting priorities.*" (respondent 4).

55 A more advanced **computational** view of digital technology surfaces only in the most digitally mature local government included in the research. Here, respondents

emphasize the potential for automating complex processes through algorithms, codes, and models: “*We are approaching a point where models can accurately simulate outcomes*.” (respondent 2). Practical applications of this view include automated invoice processing and the use of artificial intelligence to analyze camera footage for tree maintenance planning. In this context, respondents recognize the capacity of digital technologies to transcend routine administrative functions and enable innovative approaches to public service delivery.

56 While respondents demonstrate awareness of alternative views of digital technology, they primarily emphasize its role as a supportive tool, complementing rather than replacing human judgment and interaction. This is a rather cautious stance towards digital technologies, which becomes evident in their concerns about over-reliance on technology as a **proxy** for human actions and decision-making. Several respondents highlight the indispensable value of human understanding and empathy in certain tasks: “*There will always be situations where a human explanation is necessary, beyond what a computer can provide.*” (respondent 5). Moreover, apprehensions about over-dependence of digital technologies are reinforced by experiences of technological failures, such as temporary outages of cloud services that disrupted operations: “*While these incidents are rare, they reveal the risks of depending too heavily on digital technologies.*” (respondent 8).

57 Notably, respondents rarely view digital technologies as an **ensemble** – an integrated and strategic asset aligned with organizational culture and structure. Instead, they primarily associate digital technologies with specific departmental needs, often overlooking the broader, organization-wide implications for local governance. This departmental focus is reflected in comments such as: “*When digital applications are designed for individual departments, they manage to find their way, but resistance arises when trying to implement an organization-wide system.*” (respondent 11). While some respondents acknowledge the inefficiencies stemming from this fragmented and ad hoc approach, such insights remain the exception: “*The absence of a comprehensive functional analysis is a significant oversight in local governments, leading to organizational shortcomings.*” (respondent 6). Consequently, the ensemble view remains underdeveloped, with the tool and computational views dominating the view of digital technology.

Discussion

58 Taken together, the insights from these analytical steps indicate that local governments are increasingly recognizing digitalization as a potential enabler for implementing decentralization. While this growing recognition is encouraging, our findings have several important implications. In this section, we discuss these implications following the structure of the three analytical steps. Subsequently, we address the theoretical and practical contributions of the research, its limitations, and offer recommendations for future studies.

59 The **first step** identified that local governments primarily associate decentralization with increased demands on their (administrative, financial, and policy) capacity. These findings point to a persistent asymmetry between local and central government interpretations of these capacities (see Table 5). The most notable divergence concerns administrative capacity: while local governments point to staff shortages and insufficient expertise as critical barriers, central governments tend to downplay these

issues, focussing instead on coordination and regulatory aspects (e.g., De Roover et al., 2021; Reiter et al., 2010). This misalignment highlights the need for more institutionalized dialogue and shared understanding across governance levels when shaping decentralization.

Table 5: Implications from a central and local government perspective

Central government perspective	Local government perspective
Administrative implications	
• Coordination losses (Reiter et al., 2010) • Re-regulation (De Roover et al., 2021)	• Staffing shortages • Shortage specialized knowledge/expertise • Recruitment issues
Policy implications	
• Unequal treatment citizens (Bruch et al., 2018) • Blame-shifting (Kuhlmann & Wayenberg, 2016) • Risk of capturing (Faguet, 2014; Treisman, 2002) • Inertia (Treisman, 2002)	• Lack of strategic vision • Policy instability • Clientelism
Financial implications	
• Higher costs (Faguet, 2014; Treisman, 2002) • Efficiency losses (Camões, 2020)	• Limited financial strength • Efficiency losses

Source: the Authors

60 The **second step** revealed that local governments mostly recognize the potential of digitalization through its affordances to enhance administrative and policy capacities. At the same time, they are aware of significant constraints, including limited in-house IT expertise, varying levels of organizational readiness, and regulatory frameworks that are outdated or poorly adapted to digital innovation. Local governments do not consider these constraints as insurmountable; however, they consistently emphasize the need for external support to address them, particularly from higher levels of government.

61 This reliance resonates with recent literature about digital platforms, which highlights their role as collective enablers of shared technological infrastructures that facilitates the development of complementary products and services across organizational boundaries (Breaugh et al., 2023; Dunleavy & Margetts, 2023; Zeng et al., 2023). However, externalizing responsibility for overcoming digital constraints to central governments or digital platforms also carries risks (Ciarli et al., 2021; Danneels & Viaene, 2025; Margetts & Naumann, 2017) – risks that, according to our data, local governments tend to underestimate. Of particular concern in this context is the increased likelihood for the decentralization paradox (De Roover et al., 2021; Devas & Delay, 2006): local empowerment becoming increasingly dependent on centralized infrastructures. This paradox warrants future research into how centralized digitalization can be reconciled with decentralized policymaking by exploring synergies and interdependencies between these seemingly opposing forces.

62 The **third step** revealed that local governments predominantly adopt a tool view, perceiving digital technologies as readily applicable instruments aimed at short-term efficiency gains with minimal disruption to existing organizational routines. While this pragmatic orientation can yield immediate benefits, it risks overlooking the deeper

interdependencies between technology, institutional context, and local governance dynamics. As a result, digital solutions may become misaligned with broader strategic goals, leading to fragmented, suboptimal, or unsustainable outcomes (Harindranath & Sein, 2007). This dynamic is already evident in practice, as respondents identified vendor lock-in as a constraint. In the absence of an overarching strategic perspective, local actors tend to accept vendor-provided solutions without the ability to evaluate their alignment with organizational needs as a whole. This often results in fragmented digital architectures and limited interoperability across systems and departments.

63 In light of these findings and in line with other empirical studies (e.g., Akhlaghpour et al., 2013; Selten & Klievink, 2024), we suggest that the ensemble view offers a better alternative. This view understands digital technologies as embedded within dynamic socio-technical systems shaped by institutional, organizational, and cultural factors (Luna-Reyes & Gil-Garcia, 2014; Orlikowski, 1992). By adopting the ensemble view, local governments can better align digitalization efforts with long-term strategic objectives and institutional realities, including those associated with decentralization. For example, initiatives rooted in the ensemble view may involve the pooling of knowledge and expertise. This could directly address decentralization-related implications such as limited administrative capacity, as summarized in Table 5.

64 Overall, the findings indicate that local governments recognize digitalization as a potential enabler for implementing decentralization but tend to approach it with techno-optimism, often expecting it to serve as a “magic bullet”. This is reflected in their tendency to rely on central governments or digital platforms to resolve constraints associated with digitalization, thereby shifting responsibility outward. Additionally, their prevailing reliance on a tool view of digital technologies frames digitalization as a set of standalone instruments aimed at incremental improvements. These tendencies underscore the risk of overlooking the socio-technical complexity and institutional interdependencies inherent to digitalization. Consequently, local governments may overestimate the effectiveness of technical solutions while underinvesting in organizational readiness and long-term strategic alignment.

Theoretical contributions

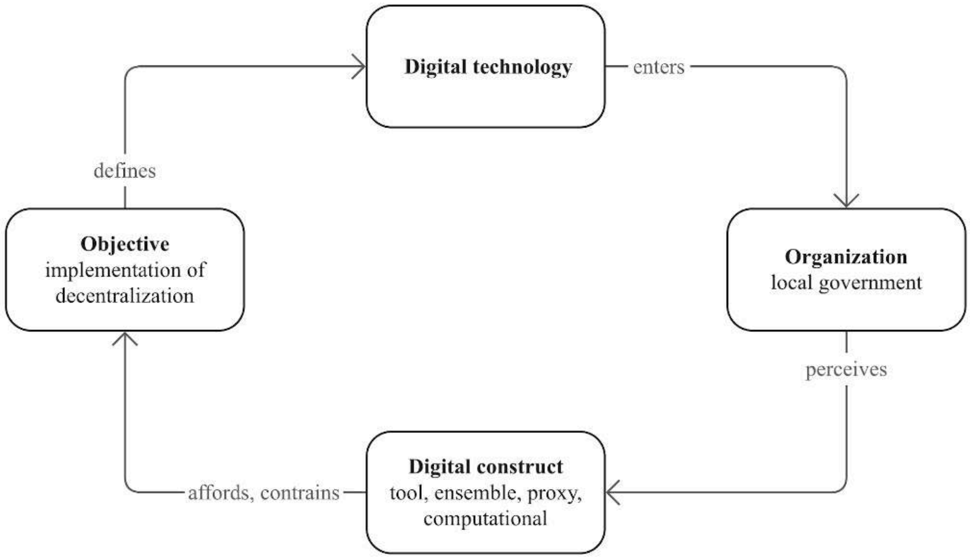
Cyclic process

65 The first contribution lies in the refinement and application of our theoretical framework. The framework proved particularly valuable for (1) uncovering the underlying implications of local policy objectives, (2) assessing the potential of digitalization in a balanced way, and (3) interpreting how digital technologies are perceived in practice. Each component contributed distinct analytical value, confirming the framework’s relevance for studying public sector digitalization (e.g., Wang et al., 2018).

66 At the same time, our application revealed limitations in the framework’s original linear structure (e.g., Goldkuhl, 2020). In practice, we found it more productive to reverse the sequence of components, prompting a reconceptualization of the framework as cyclical rather than linear (see Figure 3). In this revised version, neither a fixed starting nor defined end point is assumed. The flexibility of the starting point better reflects the reality of digitalization processes. They could just as meaningfully begin with an assessment of organizational perceptions, affordances, and constraints

rather than introducing a specific technology. This refinement also promotes greater parity among the framework's components (e.g., de Vries et al., 2018; Edelmann et al., 2023; Fountain, 2001). Likewise, the absence of a predefined end point encourages continuous feedback, learning, and adjustment – more in line with the dynamic and iterative nature of digitalization in the public sector. It further helps to move away from viewing digitalization as a fixed or final outcome (e.g., Campbell, 2012; Weible, 2023). These proposed refinements, grounded in empirical observations, enhance the framework's ability to capture the complex interplay of digital technologies, organizational dynamics, and governance objectives in a theoretically robust and context-sensitive manner.

Figure 3: Adapted visual representation of the theoretical framework



Source: the Authors

67 A final reflection concerns the operationalization of the "digital technology" component. In this study, we deliberately retained an abstract conceptualization to enable a broader exploration of patterns linking digital technologies, organizational dynamics, and governance objectives. However, in other contexts, a more concrete specification may be beneficial.

Interdisciplinary linkage

68 The second theoretical contribution lies in the interdisciplinary linkage emerging from our findings. The analysis highlights a valuable connection between policy studies and e-government and information systems literature. Specifically, it reveals how prevailing views on digitalization (as captured in information systems and e-government literature) are associated with the extent of change in the outcomes (as conceptualized in policy science).

69 The findings show that digital initiatives stemming from a tool or computational view typically result in incremental adjustments. These adaptations tend to preserve the status quo while managing decentralized responsibilities. In contrast, digital initiatives stemming from an ensemble or proxy view are more transformational, involving

fundamental changes in organizational processes, structures, and cultures (Torfs, 2025a). This distinction between incremental and transformational changes holds important theoretical value. While the literature often underscores the urgency and desirability of digital transformation (Haug et al., 2023; Kuhlmann & Heuberger, 2021; Xiao et al., 2022), our findings point to the continued strategic importance of incremental change.

70 Respondents frequently noted that incremental adaptations lay the groundwork for broader transformational changes. For example, systematically collecting and analyzing objective data was often described as a modest but foundational step that can initiate deeper shifts in policy- and decision-making. At the same time, respondents emphasized that incremental changes alone are insufficient. To ensure sustainable progress, transformational efforts are eventually necessary. For example, they mentioned the importance of redesigning the digital architectures of local governments to support and amplify the effects of incremental changes.

71 These findings open promising avenues for further interdisciplinary research into the interplay between incremental and transformational change in local government digitalization, particularly with attention to the unique value of incremental changes (Haug et al., 2023; Lindgren et al., 2021; Marienfeldt et al., 2024; Meijer & Löfgren, 2015). The policy sciences offer promising theoretical frameworks for advancing this agenda, especially those that emphasize the dynamic interaction between incremental and transformational change (Torfs, 2025a; Weible, 2023). Here, longitudinal research designs are essential, as they enable a deeper understanding of how digitalization processes and various mechanisms interact over time (Yin, 2018). From a methodological perspective, process tracing offers a suitable approach, as it allows for the identification of causal mechanisms and the mapping of context-specific dynamics that shape digital change in public sector settings (e.g., Beach & Pedersen, 2016; Capano & Howlett, 2019; Mahoney, 2016).

Practical implications

Dodging the magic bullet

72 Local governments tend to approach digitalization as a “magic bullet” capable of addressing a wide range of challenges, including those related to decentralization. However, this form of techno-optimism is increasingly difficult to sustain in today’s complex digital landscape which is marked by limited in-house expertise, vendor lock-in, and regulatory pressure. In light of these pressures, our findings suggest that local digitalization efforts are more likely to succeed when they are embedded in a strategic and integrated approach, one that aligns with long-term policy objectives and broader organizational developments.

73 Two underlying dynamics appear to sustain the persistent optimism: a dominant tool view of digital technologies and a tendency to rely on central governments for the development and provision of digital solutions. Against this backdrop, two practical recommendations emerge. First, local governments may benefit from fostering a more mature, socio-technical mindset toward digitalization – one that views digital technologies not as isolated tools, but as dynamic processes deeply embedded in and shaped by organizational structures and cultures (Luna-Reyes & Gil-Garcia, 2014; Orlikowski, 1992). Encouraging such a mindset shift requires sustained awareness and

engagement among political leaders, general directors, and civil servants. Tailored training programs and sensitization initiatives serve as valuable enablers, particularly those that highlight the socio-technical and institutional dimension of digitalization (e.g., Akhlaghpour et al., 2013; Selten & Klievink, 2024).

74 Second, closer and more structured collaboration between local and central governments may provide important leverage. This could include developing a shared digital vision with clearly articulated objectives, establishing recurring consultation moments, and co-creating digital platforms that incorporate modular building blocks (e.g., Cusumano et al., 2019; Danneels & Viaene, 2025). Such collaboration should be grounded in mutual responsibility: local governments cannot depend solely on central governments to address digital challenges, just as central governments cannot leave full digital responsibility solely to local governments. This is particularly relevant in the Flemish context, where considerable variation in digital maturity among local governments risks reinforcing uneven organizational capacity and, by extension, inequalities in public service delivery (Meijer, 2025; Torfs, 2025b).

Cyclic process in practice

75 The second recommendation is to actively apply the cyclical approach to our framework. This approach recognizes digitalization as a dynamic and iterative process shaped by ongoing cycles of reflection, learning, and adaptation. Adopting such an approach can strengthen the adaptive capacity of local governments to navigate the evolving and often unpredictable nature of digitalization. More specifically, the cyclical approach encourages local governments to assess more precisely how digitalization aligns with their broader strategic and organizational goals. Crucially, it also creates room for early and systematic attention to two elements that are often overlooked: the affordances and constraints of digitalization, and the organizational perceptions through which these technologies are understood. Since both elements are commonly associated with implementation friction or failure, addressing them from the outset can reduce the risk of failure and lay the groundwork for more robust, context-sensitive digitalization efforts.

76 Adopting this approach does require an upfront investment in time and capacity. However, this investment pays off over time by supporting more thoughtful, context-sensitive, and sustainable decision-making. Ultimately, the cyclical approach fosters digital strategies that are not only technically sound, but also institutionally embedded and responsive to local realities.

Limitations of the research

77 Finally, it is important to acknowledge the limitations of this research. A first limitation is that the findings are specific to the Flemish context. Decentralization processes, local implications, and views of digital technologies can differ across regions and countries. As such, while the insights offer valuable contributions, their direct applicability to other contexts may be limited (Yin, 2018). To strengthen external validity, a recommendation for future research is to explore similar dynamics in diverse regions and cultural settings, extending beyond the traditionally studied Napoleonic or Western European contexts.

78 A second limitation concerns the reliance on public employees' perceptions, gathered through qualitative methods. While this approach provides rich, context-sensitive insights, it also introduces potential subjectivity (Flick, 2022). To mitigate this, the study applied data triangulation and multiple measurement points, combining focus groups and semi-structured interviews conducted over time (Creswell & Poth, 2023). Nonetheless, the inherent subjectivity of qualitative data cannot be entirely eliminated. Future research would therefore benefit from complementing perception-based approaches with quantitative measures that assess the actual effects of digitalization on decentralization processes. A mixed-methods design could offer a more comprehensive perspective and help reveal patterns that might remain hidden in qualitative research alone.

6. Conclusion

79 The aim of this research was to explore how digitalization can empower Flemish local governments in navigating the implementation of decentralization. To achieve this, we conducted a multiple case study of nine local governments, drawing on data from 36 focus groups and 11 expert interviews. We adopted a socio-technical perspective, integrating Technology Affordances and Constraints Theory with a typology of technological perceptions. This framework enabled a structured, sequential analysis that revealed three key insights. First, local governments primarily associate decentralization with increased demands on their administrative, financial, and policy capacities. However, differing interpretations between local and central governments highlight the need for a more institutionalized dialogue and a shared understanding of what these capacities entail within the context of decentralization. Second, while local governments recognize the potential of digitalization – particularly its affordances for enhancing administrative and policy capacities – they also acknowledge significant constraints. In attempting to overcome these, they frequently externalize responsibility to higher levels of government or to digital platforms. However, this tendency introduces new risks that local governments tend to underestimate. Third, local governments predominantly adopt a tool view of digital technologies, focusing on short-term efficiency-oriented gains. This view risks obscuring the complex and dynamic interdependencies between technology, institutions, and governance. Alternative views may offer more constructive and resilient pathways, particularly in the face of the growing complexity and unpredictability of digitalization.

80 Overall, the findings suggest that digitalization is increasingly seen as a valuable enabler for local governments to implement decentralization. However, its full potential is hindered by a persistent form of techno-optimism and a limited understanding of its socio-technical implications.

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APPENDIXES

Appendix 1 – Exemplary quotations illustrating the divergent views of the respondents

Quotes	**Nouns and Verbs**	**View**
• Digitalization is simply the most significant **tool** we have in this context. (respondent 2) • Technology itself does not shape policy, but access to data and dashboards is a crucial **means** for informed	instrument, means	Tool

decision-making, such as setting priorities. (respondent 4). • Digital technologies won't alter the content of tasks, but they provide a new **instrument** to perform them effectively. (respondent 5) • Digital transformation can certainly be a viable **means** to enhance processes. (respondent 9) • If the tool is well-designed and the processes are carefully considered, it should lead to simplification. (respondent 11)		
• The goal of digitization and automation should be to **support** core tasks, enabling employees to apply their expertise more effectively. (respondent 4). • Digital technologies **help** to align government actions, with strategic focus and objectives. (respondent 5). • In my view, having access to more digital data can help **strengthen** confidence. (respondent 5) • If **improvement** is the goal, the solution lies in more, not less, digitization. (respondent 6)	support, enhance, improve, increase, strengthen, help	
• We are approaching a point where **models** can accurately simulate outcomes. (respondent 2). • Machine learning-generated **models** can assist in executing specific tasks. (respondent 8)	model	Computational
• I believe we can use models to **simulate** and inform better decision-making, even in large societal issues that involve behavioral as well as technical dimensions. (respondent 2)	forecast, predict, simulate	
• There will always be situations where a **human** explanation is necessary, beyond what computers can provide. (respondent 5).	surrogate, substitute	Proxy
• We opted not to **replace** people, choosing to invest in digital resources instead. (respondent 2) • The time and space freed up by digital technologies are used to not **replace** certain profiles anymore. (respondent 5)	replace, take over	
• Digital technologies could facilitate process redesign, creating a seamless flow across the **organization**. (respondent 1) • The absence of a comprehensive functional analysis is a significant oversight in local governments, leading to **organizational** shortcomings. (respondent 6) • When digital applications are designed for individual departments, they manage to find their way, but resistance arises when trying to implement an **organization**-wide system. (respondent 11)	organization	Ensemble
• This approach necessitates **collaboration** across various departments for project success. (respondent 4)	interact, integrate, collaborate	

• Our IT department centrally manages digital initiatives, ensuring, for example, that packages **integrate** smoothly on our server. (respondent 6) • With increased **interaction**, we could collectively build a more compelling narrative. (respondent 9)		

NOTES

1. Although the i-Monitor was developed in 2016, the digital maturity and capacity of Flemish local governments have remained relatively stable over time (Danneels et al., 2024). Consequently, the i-Monitor remains a valid and representative benchmark for assessing relative differences in digital proficiency across local governments.

ABSTRACTS

Decentralization, driven by the promise of improved governance, has gained prominence on policy agendas and in policy research. Yet, its practical implications for local governments remain underexplored. Concurrently, digitalization is gaining traction as a promising strategy to empower local governments, though its potential role in supporting decentralization processes is not fully understood. This research adopts a socio-technical perspective. It integrates Technology Affordances and Constraints Theory with a typology of technological perceptions to explore how digitalization can empower local governments in implementing decentralization. Empirically, the research is grounded in 36 focus groups involving nearly 250 participants and 11 expert interviews within nine Flemish local governments. Findings indicate that: (1) local governments primarily associate decentralization with an increased demand for capacity; (2) they recognize digitalization's potential specifically in enhancing administrative and policy capacities; yet (3) they predominantly perceive digital technologies through a narrow tool view. Overall, the findings reveal a persistent tendency among local governments to approach digitalization as a "magic bullet", often overlooking its broader socio-technical context. These findings contribute to the theoretical understanding of digitalization and decentralization and offer practical implications for policymakers seeking to strengthen both processes.

INDEX

Keywords: decentralization, digitalization, digital technology, local governments, Flanders, multiple case study

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