Developing an analytical framework for analyzing and comparing national e-government strategies

Sara Hofmann[1], Christian Østergaard Madsen[2], Bettina Distel[3]

[1]University of Agder, Postboks 422, 4604 Kristiansand, Norway

[2]IT University Copenhagen, Rued Langgaards Vej 7, 2300 Copenhagen S, Denmark

[3]University of Münster, Leonardo-Campus 3, 48149 Münster, Germany

Abstract. Across the world, e-government strategies are developed for the effective digitalization of the public sector. They offer governments a framework for dealing with challenges such as technical and legal interoperability and collaboration between public and private sector stakeholders, and for promoting a future vision for a digital public sector. Since e-government strategies are policy document and, thus, likely to convey biased perspectives, analyses of these strategies can yield insights into these biases and different perspectives on public sector digitalization. Until now, there has been no widely recognized framework for systematically analyzing e-government strategies. Based on literature and by applying our findings to the Danish and German e-government strategies, we have developed a novel analytical framework for comprehensively analyzing and comparing national e-government strategies. The framework focuses on the strategies' role, their function, and their specific content, such as strategic goals and measures to implement e-government. Analyzing and comparing both countries as a proof of concept shows fundamental differences in the level of digitalization and the implementation of e-government. This article contributes to both research and practice by presenting a comprehensive framework for analyzing national e-government strategies and by discussing their context-sensitivity.

Keywords: E-government Strategy, Digital Government Strategy, Policy Analysis.

1   Introduction

Digital technologies offer important opportunities for achieving efficiency gains and improving service levels in public sector administration [1–3]. Moreover, through the successful strategic implementation of emerging technologies, public digitalization can contribute to addressing societal issues such as an aging population, improving healthcare, and creating business opportunities [4–6]. However, digital technologies also bring challenges. For instance, governments must protect their information and citizens against hacker attacks and misinformation, and they must ensure that public employees and citizens have the necessary skills and are motivated to use the digital

services offered [3, 7]. Finally, the successful implementation of digital technologies requires attention to numerous other areas, i.e. the national context, technical and legal interoperability, and collaboration between public and private sector stakeholders [3].

Digital strategies offer governments a framework to address these issues and promote their vision for utilizing digital technologies. The national digital strategies were not created for research purposes, but with the explicit purpose of promoting public sector digitalization. As policy documents, they are interesting, precisely because they are not neutral, but rather present a biased view on a specific topic [8]. Thus, a comparative analysis of national digital strategies may yield important insight into these biases and different perspectives on public sector digitalization.

We find Denmark and Germany to be interesting countries for such a comparative analysis. On the one hand, the two countries have many similarities. They are neighbors, industrialized, wealthy, welfare states, with large public sectors. In terms of e-government implementation and adoption, however, they are vastly different. Denmark is a frontrunner, while Germany continuously lacks behind in service offers and adoption rates despite having Europe's largest national economy [9]. German delegates regularly visit Danish e-government decision makers to learn from their experiences, and Denmark has even institutionalized a digitalization ambassador in the Danish embassy in Berlin.

There are numerous non-peer reviewed studies, which compare and rank e-government adoption in different countries [9–11]. Similarly, several studies analyze e-government strategies from developing countries. However, there are few studies, which analyze and compare national e-government strategies in industrialized countries. Recently, a framework by Rose et al. [12] has become popular for analyzing values in e-government policy documents [13–15]. But, to the best of our knowledge, there is no recent widely recognized framework for analyzing and comparing other elements of national e-government strategies. To address these gaps in the extant literature, we have conducted a study, with two specific research goals:

1. Develop an analytical framework for comparing national e-government strategies.
2. Apply the framework to the Danish and German e-government strategies as a proof of concept.

This paper is structured as follows: The next section presents previous studies on e-government and digital strategies and background information. Then we present the method we applied to develop the analytical framework, followed by the analytical framework itself. We then offer a proof-of-concept by briefly presenting our comparative analysis of the Danish and German e-government strategies. Finally, we offer concluding remarks, discuss the limitations of our study and suggest future studies.

2 Background on e-government strategies

2.1 E-government strategies

Sandoval-Almazán et. al distinguish between (national) digital government strategies, which operate at the societal level, and enterprise or e-government strategies, which operate at the organizational level [3]. A national digital strategy is a framework for the use of digital technologies for governments and in society. It represents *"a general vision of how information technology should be utilized to support social and economic development of the society as a whole, as well as focusing on benefitting specific subsets of the society"* (p. 10). National digital strategies are linked to the UN millennium goals such as gender equality and literacy. When developing such strategies, representatives from the public and private sectors and from the civil society often collaborate. In contrast, a digital government, e-government, or enterprise strategy, deals with applying IT in the public sector. Such a strategy concerns *"the internal use of information technologies aimed at creating more efficient government and improved delivery of government services."* (p. 14). The 'internal' perspective can refer to one government organization, or a nationwide level, i.e., the whole public sector of a nation.

We searched for studies analyzing and/or comparing e-government strategies, in general, and from Germany and Denmark specifically. The search was conducted in May 2019 and updated in March 2020 using Publish and Perish with Google Scholar as search engine. The keywords used were Danish, Denmark, German Germany, digital government, e-government, strategy, policy analysis, and comparison.

Many of the identified studies include e-government strategies and similar policy papers in their analyses, but few present in-depth analyses of the national e-government strategies as texts. In 2003, Chadwick and May presented an analysis of policy documents on public sector digitalization comparing the US, EU, and the UK [2]. We have not identified any recent studies, which analyze and compare national e-government strategies as texts through qualitative or quantitative content analysis. Rather, scholars have analyzed the strategies by other means, such as by interviewing and surveying policymakers [16, 17], by describing the goals and key topics therein at a high level of abstraction (i.e. in headlines) [18], or indirectly by presenting data analyses from other sources [19], such as consultancy companies and international rankings of countries according to the availability and diffusion of e-government services [9].

While such comparisons can be useful, they are unfit for our research purposes. The international e-government rankings are frequently criticized by scholars [20] because they have not been subject to peer-review, and because both methodology and the underlying data is often black-boxed and not available for closer inspection. According to Blaikie such tertiary data – which has been generated and analyzed by another researcher – should be treated with caution because of the risk for *"unintentional or deliberate distortion"* [21]. We also found that several of the identified studies merely reproduced the strategies' overtly optimistic presentation of e-government by repeating a list of benefits, without any form of critical reflection.

2.2   The Danish and the German e-government strategy

We consider Sandoval-Almazán et al.'s classification of strategies in the public sector as a continuum ranging from national digital strategies on the one end to e-government enterprise strategies on the other end. The strategies of Denmark and Germany we have analyzed can be classified in between the two extreme cases. Neither do they discuss the general use of digital technologies in a society as a whole nor are they limited to the internal use of digital technologies within the public sector or a public sector organization. Rather, both strategies deal with the use of digital technologies, its technical and social antecedents and consequences both within public sector organizations and beyond that, thus extending the understanding of e-government enterprise strategies. However, their focus is clearly limited to the interaction between public sector and further stakeholders, thus limiting the boundaries to public sector services and thereby staying below the general use of digital technologies as proclaimed in national digital strategies.

The Danish digitalization strategy 'A Stronger and More Secure Digital Denmark' is the fifth document in a row of strategies, with the first strategy being published in 2001, the penultimate in 2011. Although each of the strategies can be considered individually and sets new priorities, together they form a single digitalization program for Denmark. The latest strategy of 2016 was developed by the Danish Agency for Digitalization as a cooperation of all federal levels, i.e., the national government, the local government, and the Danish regions together authored the strategy. The strategy is 60 pages long, graphically prepared and follows a uniform design as a brochure.

It opens with an introductory section on the overall mission pursued with the strategy, a short outline of current developments that require further digitalization within the public sector, and a short positioning of the strategy within the overall Danish digitalization program. Afterwards, the vision and goals of the strategy are stated. Specifically, the Danish strategy aims i) for "digital solutions [that are…] easy-to-use, quick and [that] ensure high quality", ii) for "digitisation [that…] provide[s] good conditions for growth", and iii) for "security and confidence" [22, p. 15]. The strategy's main part divides each goal into three sub-goals and lists the specific initiatives and measures planned to achieve each goal. The strategy concludes with an outlook on how it can be further developed.

The German National E-Government Strategy was published in 2015 as an amendment of the original strategy of 2011 and is authored by the IT Planning Council. The council coordinates the digitalization efforts of all federal levels in Germany and, thus, coordinates e-government projects across the levels. Being an amendment to the original one, the current version of the German e-government strategy does not set a new focus but deepens and extends the program of its predecessor. The strategy is presented in text form, with one figure summarizing the strategy's main goals and related actions.

The German strategy starts with a foreword, highlighting the how and why of its development. The second section focuses on current developments that challenge the German public sector and that can be addressed through further digitalization. In addition, it also contains a separate section on its role for e-government activities and projects in Germany. Afterwards, the five guiding principles of the strategy are introduced,

namely i) "Usefulness [of e-government] for citizens, businesses and public administra-tions", ii) "Cost-effectiveness, efficiency and performance [of e-government]", iii) "In-formation security and data protection", iv) ensuring "Transparency and participation in society", and finally, v) ensuring "Innovation and sustainability" [23, p. 7]. In the subsequent section, each of these principles is divided into several goals and a set of accompanying initiatives and measures to reach these goals. The strategy concludes with an exhaustive glossary of main terms and projects mentioned in the strategy.

Although there is a rich literature and many empirical studies of e-government from Germany, we have not identified studies, which analyze the national German e-govern-ment strategy as a policy document. The five Danish national e-government strategies from 2001-2016 have, however, been subject to several studies.

Jæger & Löfgren present an in-depth, theoretically guided analysis [24]. They present direct quotes from the strategies to back up their claims, and find, that the democratic ideals, which initially informed e-government policies, have been sidelines in favor of managerial and efficiency ideals. This echoes Chadwick and May [2], who found similar developments in e-government strategies from the US, UK and EU [2]. Similarily, Scupola [25], along with Meyerhof & Yasuka [26], present the historical development of e-government in Denmark based on analysis of policy document and interviews with key stakeholders. Jansen, Berger and Goldkuhl compare the three Scandinavian countries' e-government strategies with an emphasis on secure digital post [27]. They find that the countries' strategies offer three remarkably different approaches to digital post adoption from coercion (Denmark), to nudging (Norway) to voluntary (Sweden). Joseph & Avdic compare EU fact-sheets of Nordic countries' e-government policies [28]. Schou and Hjelholt have conducted several analyses of the e-government strategies, informed by a critical realist, post-marxist perspective [29–31]. Their studies revolve around the construction of the digital citizen, and how the strategies treat socially excluded groups. Persson et al. apply Rose et al.'s e-government value framework [12] to guide their analysis of two e-government strategies from 1994 and 2016 [32]. They find little development over the years, although values concerning citizen engagement have declined.

3   Method for developing the analytical framework

The analytical framework for comparing national e-government strategies was devel-oped in a two-stage process. First, we identified relevant prior literature (see section 2) on which the analytical framework and its specific categories is based. Second, the re-sulting framework was applied to the strategies (see section 5) and iteratively refined.

The comparison of the national e-government strategies requires an interpretation of its contents, wherefore a *qualitative content analysis* was conducted. Commonly, three different types of (qualitative) content analyses are differentiated that serve specific purposes [33]. The conventional content analysis is used to inductively analyze the ma-terial, whereas the directed content analysis makes use of predefined categories when interpreting the data. Finally, the summative content analysis is used to understand the context in which words or concepts are used. For our purposes, the second variation,

the directed content analysis, is most appropriate as several studies especially on the Danish e-government strategies already exist. The directed content analysis as presented by Hsieh & Shannon [33] widely corresponds to the structuring content analysis by Mayring [34], who also proposes a detailed process model for this kind of content analysis, which we follow in our work (see Fig. 1).
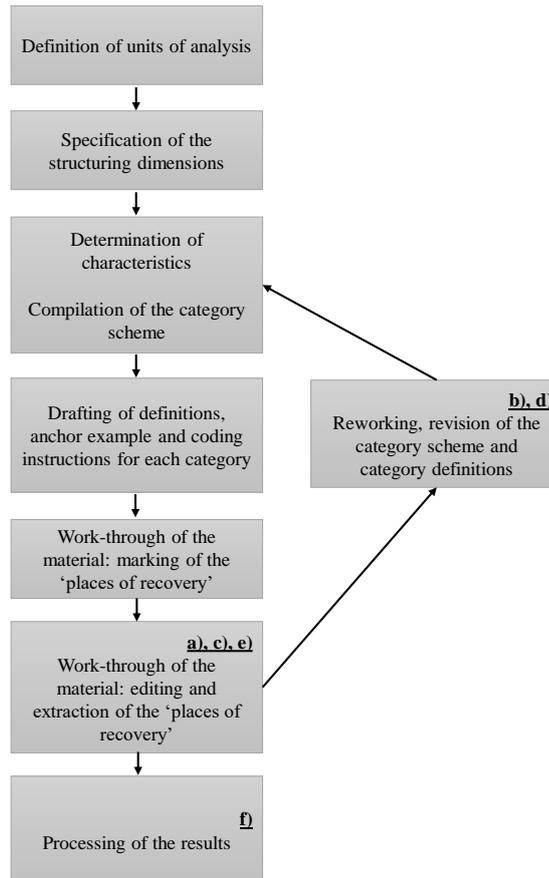

Fig. 1. Methodological process model based on [34]

First, the analysis starts with deciding on the **units of analysis**, which in the present study are the written national e-government strategies of Denmark and Germany in their latest versions. Second, based on the above identified prior research, we derived a **set of relevant categories** for the strategies' assessment with a total of six overarching categories, namely contextualization and self-understanding of the strategy, goals of the strategy, actions of the strategy, stakeholders, public service areas and technologies, national context, and conditions and consequences of e-government. For each of these categories, we derived sub-categories either from prior literature or inductively through a first informal test coding. The third and fourth step in this process include **compiling**

the preliminary category scheme and to decide on a first version of **definitions, anchor examples,** and **coding instructions**. In a first **work-through** (a) (see Fig. 1) of the strategies, this version of our coding scheme was used to code both strategies and re-define all categories, examples, definitions and coding instructions. This was done by identifying all relevant statements in the strategies and assigning them to one or more sub-categories according to the coding instructions. The results and all coded segments were discussed in a workshop with all three researchers, where differences in the coding strategy, unclear or imprecise definitions were discussed, and the **category scheme was reworked** (b). These steps were followed by another work-through and a second workshop during which the researchers agreed on a final coding scheme which, finally, was applied to both strategies by one researcher (c-e). During the **processing of the results**, the last step as proposed by [34], the categories were re-grouped into five main categories (see section 4) although the content did not change any more (f). The final coding scheme is presented in the following section. Table 1 contains a summary of all categories and sub-categories and shows which sub-categories were derived from literature and which were derived inductively from the material.

4 Presentation of analytical framework for analyzing e-government strategies

As described above, we have iteratively developed the analysis framework, starting from literature and enhancing it by inductive development of further categories. Our main literature sources for developing the categories are the compendium "Building Digital Government Strategies" by Sandoval-Almazán et al. [3] and the "Recommendation of the Council on Digital Government Strategies" published by the OECD [35]. Table 1 gives an overview of our coding categories.

Table 1. Analytical framework

Category	Description
1. Contextualization and self-understanding of the strategy	
a. Authors	Who are the authors of the strategy?
b. Audience of the strategy	Does the strategy explicitly mention the audience? Whom?
c. Role of the strategy	What does the strategy say about how it should be applied?
d. Plan for further development of the strategy*	Does the strategy mention how it will be expanded in the future? How?
e. Legal activities/framework	What laws/legal frameworks are mentioned in the strategy that influence or are influenced by the strategy and its goals?
f. Definition of main terms*	Are main terms explicitly defined, e.g. in a glossary or in the text?

2. Goals and actions of the strategy	
a. Strategic goals	What overall high-level goals does the strategy mention?
b. SMART goals*	What SMART (specific, measurable, applicable, reachable and/or time-bound) goals are mentioned in the strategy?
c. Explicit tasks*	What tasks to implement are explicitly mentioned in the strategy?
d. Implicit tasks*	What tasks that would be required to implement the strategy are implicitly mentioned in the strategy?
3. Stakeholders, public service areas and technologies	
a. Stakeholders	What stakeholders that influence or are being influenced are mentioned in the strategy?
b. Public service areas	What specific public areas does the digital strategy concern?
c. Technologies (what is the 'e') *	What specific technologies that are used or to be used by the public sector are mentioned in the strategy?
4. National context	
a. National context	What country-specific context does the strategy mention?
5. Conditions and consequences of e-government	
a. Risks, considerations, barriers, requirements, and challenges	What factors does the strategy mention that need to be considered to increase and promote the use of e-government?
b. Societal challenges*	What society-wide factors does the strategy mention that challenge or are challenged by e-government?
c. Negative consequences of e-government*	What negative consequences of e-government does the strategy mention?
d. Positive consequences of e-government*	What positive consequences of e-government does the strategy mention?

* categories marked with an asterisk were added inductively during coding

Contextualization and self-understanding of the strategy. The first main category describes how the strategy understands itself and how it is put into legal context. It is important that a responsible body is identified for ensuring the implementation of the overall strategy, which needs to be coordinated among different levels of the public sector. Furthermore, the relevant stakeholders and different levels of public sector organizations should deliver their input to the development of the strategy [35]. Since these roles are often difficult to comprehend from an outside perspective, it makes sense to identify the *authors of the strategy (1a)* as well as the *audience of the strategy (1b)*. While the first are responsible for developing and publishing the strategy, the latter are those for whom the strategy is written. In an ideal case, an e-government strategy should be applied in every public sector decision and the interplay between this strategy and other public sector strategies should be taken into account and aligned [35]. Thus, it is important to identify the *role of the strategy (1c)*, referring to any information that mentions how the strategy should be applied. During our coding, we added the category *plan for further development of the strategy (1d)* that explains how the strategy is

supposed to be further developed in the future. An e-government strategy can be one in a row of several subsequent strategies or might need to be regularly revised. Since in e-government processes, often several government agencies are involved, new forms of interaction require substantial institutional changes including laws, rules, and norms [3]. Therefore, these regulations might need to be adjusted in order to implement an e-government strategy, which can require reviewing existing legal and regulatory frameworks. The category *legal activities/frameworks (1e)* captures the legal framework that influence or are influenced by the e-government strategy. Finally, we added the category *definition of main terms (1f)*, where important concepts are described, e.g. in a glossary. This can be relevant for understanding the terminology used in a strategy and it can give hints as to the audience of the strategy.

Goals and actions of the strategy. The second main category describes the goals of the strategy and the actions required to reach the goals. The application of technology is no goal in itself. Before developing a roadmap for using technology, it is therefore crucial to understand and define the problems that need to be solved by e-government [3]. These problems can then be formulated into *strategic goals (2a)*, which are the overall high-level goals a strategy contains. The OECD, for example, defines main goals of an e-government strategy as "greater transparency, openness and inclusiveness of government processes and operations" [35, p. 6]. In addition to strategic goals, we also came across *SMART goals (2b)* in the strategies, which refer to operational goals including specific, measurable, achievable, realistic, or time-bound elements. Furthermore, we identified more operationalizable tasks. On the one hand, strategies can contain *explicit tasks (2c)*, i.e., activities that according to the strategy need to be carried out to implement the goals. On the other hand, they can refer to *implicit tasks (2d)*, which are implicitly indicated.

Stakeholders, public service areas and technologies. The third main category includes the stakeholders, the public service areas and the technologies that are mentioned in the strategy. For every e-government project, it is important to understand the involved or affected *stakeholders (3a)* because the success of e-government endeavors depends heavily on their support and adoption of the solutions [3, 35]. These stakeholders can be internal or external. During coding, we identified the category *public service areas (3b)*, which categorizes specific domains or contexts that the strategy mentions. These areas indicate areas of prioritization for the years to come or show projects that have been successful during the past. In addition to stakeholders and service areas, technologies are acknowledged as important key driver to create and improve innovation and public service delivery [35]. Therefore, the final sub-category refers to the *technologies (3c)* that, according to the strategy, are used or to be used.

National context (4). The fourth category describes if the e-government strategy mentions a country-specific context. It is important to understand that e-government as such and e-government strategies are highly context-dependent and that it is not possible to transfer solutions from one country one on one to any other context [36]. E-government

projects are, for example, highly dependent on the country's or municipality's economic situation as well as the political structures and environment [3].

Conditions and consequences of e-government. The fifth and final main category describes the conditions and consequences of e-government that need to be considered according to the strategy. Using digital technologies in the public sector can evoke several risks such as security and privacy issues that need to be overcome by a strategy [35]. The first sub-category *risks, considerations, barriers, requirements or challenges for e-government* (5a)*,* therefore, refers to aspects that need to be considered or overcome in order to increase and implement e-government. In addition to these specific individual, technical or organizational aspects, we identified *societal challenges* (5b)*,* which describe society-wide challenges that influence or are influenced by e-government. Finally, we coded *negative consequences* (5c) and *positive consequences* (5d) of e-government that are mentioned by the strategy.

5 Application of analytical framework to the Danish and German e-government strategies

After developing the final set of categories, we coded the Danish and the German e-government strategies to get a proof of concept of our analytical framework. This section contains an excerpt of the analysis. Besides the analysis of the content of both strategies, we also counted how often the categories were coded in each strategy in order to assess the importance given each category within the strategies.

Contextualization and self-understanding of the strategy. This category was coded 26 times in the Danish and 32 times in the German strategy. Both strategies clearly describe the *role of the strategy (1a)* but differ in how they do so. The statements coded in the Danish strategy integrate the current strategy into the overall Danish digitalization program. Thus, the role of the Danish strategy is not restricted to specific goals in a given timeframe but explicitly includes previous strategies and their goals as well. In contrast, the German strategy is more focused on itself. The statements show that the strategy's role is to underline the IT planning council's mandate to coordinate the development of e-government in Germany. In addition, some statements indicate that the strategy follows existing strategies of other organizations in structure and content. Rather than setting the course of digitalization for the upcoming years – as the Danish strategy – the German strategy is formulated as a guiding framework that aims at ensuring the effectiveness and efficiency of administrative processes.

Goals and actions of the strategy. In the Danish strategy, 186 segments were coded, in contrast to 69 in the German strategy. The Danish strategy mentions several *strategic goals (2a)* such as the creation of growth and value, especially for businesses, through digitalization, ensuring and enhancing current security standards in order to safe-guard the strong confidence of the Danish society in the public sector digitalization, increasing and enhancing the user-friendliness of digital government services, and increasing

the transparency of the public sector, for example, to disclose how sensitive data of citizens and businesses is processed. The German strategy has similar strategic goals, namely usefulness of e-services; cost-effectiveness, efficiency, and performance; information security and data protection; transparency and participation in society; innovation and sustainability. However, the themes running through all goals differ from those identified as underlying the Danish strategic goals and we only find two of these underlying themes. *First,* the strategy focuses on increasing user-friendliness for all users of public administrations, i.e. citizens, businesses, and public administrations, by providing e-services. This theme emerges in all specific goals of the strategy and is strongly focused on developing client-centric e-services and enabling democratic participation, without specifically addressing efficiency or effectiveness as can be seen in the Danish strategy. *Second,* the strategic goals focus on reaching and sustaining a high level of security and stability of technical infrastructures. This theme is focused on internal processes and the creation and maintenance of technical cooperation, i.e. interoperability of systems between the federal levels.

Stakeholder, public service areas, and technologies. In the Danish strategy, we coded 148 instances for the third category and 45 instances for the German strategy. Both strategies identify similar *stakeholders (3a)*. These include stakeholders from the public sector such as public sector employees, ministries and agencies or the public sector in general, stakeholders from the private sector, and stakeholders from the civil society such as citizens or stakeholder organizations. In the Danish strategy, the stakeholders in the citizen category are sometimes concretized and referred to as 'Danes', 'parents', 'elderly' or even more concretely 'young people released from prison'. The German strategy further includes research organizations as potential stakeholders. In both strategies, especially the stakeholder groups from the public and the private sector are ascribed an active role in the sense that they need to cooperate or perform certain activities in order to increase e-government activities. Citizens, in contrast, are mainly presented as passive stakeholders who can benefit from digital services.

National context (4). We identified 31 instances of the national context in the Danish and one instance in the German strategy, showing a much stronger emphasis on context in the Danish strategy. Interestingly, these contextual factors cover quite different areas. Some areas, such as adoption rates, and the development of digital infrastructure, are generally objective and quantitative, while others such as the importance of high levels of trust, the nature of collaboration and pragmatism, are more subjective and qualitative. One of these sub-themes also, quite directly, concerns the importance of the history of the strategies and the iterative approach to digitalization. This, by extension, highlights the important role of the authors of the strategy, especially the Digitalization Agency. In contrast, the only point where the German strategy mentions a national context is a reference to Germany's federal structure.

Conditions and consequences of e-government. The Danish e-government strategy contains two instances of *negative consequences (5c)* from digitalization. These concern the increased vulnerability, which digitalization entails, due to the interconnectedness

of the IT systems and increased risk of cybercrime. The latter may not only lead to economic damage, but also to a loss of public trust in IT. The German strategy does not mention any negative consequences of e-government. In contrast, we coded 72 instances of *positive consequences (5d)* in the Danish e-government strategy, and seven instances of positive consequences in the German strategy. In terms of the number of instances coded, it is clear, that the strategies have a much stronger focus on the potentially positive than negative consequences.

6   Discussion and conclusion

In this article, we developed an analytical framework for national e-government strategies and applied this framework to the Danish and German e-government strategies as a proof of concept. Based on prior research on e-government strategies and amended by induction, we developed a framework of five overarching categories that describes the role, function and specific contents of (national) e-government strategies. We applied the analytical framework to the German and Danish national e-government strategies. Our analysis and comparison suggest that the strategies differ fundamentally but are both characterized by the respective national context: Denmark has a long tradition of digitalization and the strategy is part of an overarching vision of digitalization that spans decades. The German strategy is much more influenced by the status quo of digitalization and – conceived merely as an amendment of the original strategy – might be the beginning of a comparable development.

Our study offers several contributions to e-government practice. First, the framework highlights the context-sensitivity of e-government strategies. Therefore, policymakers should be cautious before attempting to transfer strategies and best practices from one context to another. Our study is – to the best of our knowledge – the first to analyze the national German e-government strategy as a policy document through content analysis and compare it to the Danish strategy. This comparison shows fundamental differences in how policymakers conceptualize e-government, and in how e-government strategies are used as tools to implement e-government. Further, we find that, systematically analyzing and comparing strategies with this framework can disclose otherwise hidden or only implicitly described conceptualizations of the functions of IT in the public sector, the roles the stakeholders play or should play, their duties and the bigger picture policy-makers actually aim for. We find that the framework is suitable to analyze strategies on all federal levels and allows for international comparisons. Our study also offers contribution to e-government research. We have developed a framework to analyze e-government strategies and tested it on two such strategies.

The focus of the study was on two wealthy, developed economies with differing levels of e-government adoption. While the chosen cases already provide rich insights into the development and implementation of e-government strategies, we suggest widening the scope of our framework by applying it to countries with lower e-government maturity. We would like to invite researchers to use our framework and apply it to other e-government strategies. Such additional analyses and comparison can add to the understanding of how e-government is perceived and developed across the world. Rather

than focusing on one particular application area such as digital post or the presence of certain (public) values in the strategies, our approach is holistic, and seeks to describe the strategies as a whole through five large aspects. These aspects can be analyzed in-depth on their own or be compared. By focusing on various aspects and their relation to one another, we can address the criticism by Jaeger & Löfgren that *"literature tends to take on policy-makers' cognitive and normative positions as factual propositions, where these positions are treated as explicit and objective realities."* [24, p. 253].

Acknowledgements

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