Digitally Aided Sovereignty: A Suitable Guide for the E-Government Transformation?
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DIGITALLY AIDED SOVEREIGNTY

A SUITABLE GUIDE FOR THE E-GOVERNMENT TRANSFORMATION?

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ABSTRACT

We advocate for the adoption of an integrated strategy aimed at achieving increased participation *via* effective digital public administration services. We argue that it is urgent to understand the integration of participatory approaches from the field of e-democracy in digitalized public administration, as trendsetting e-government implementations are already underway. We base our arguments on the observation that the approaches in e-democracy and e-government seem to be locked into extremes: In e-democracy, (experimental) platforms have failed to create a participative political culture. E-government, in turn, narrowly perceives citizens as customers. Additionally, efforts to increase digital sovereignty have mostly been educational ones that support citizens' self-determined use *of the digital* but do not address sovereignty *via the digital*. As a result, digitalized public administration is not achieving its potential to create opportunities for participation during encounters with the administration. Hence, we argue for the adoption of a *digitally aided sovereignty* as a normative guide for an e-government transformation that strives to create opportunities for participation *via the digital*.

1 INTRODUCTION

The term digital sovereignty is perhaps most commonly subdivided into types referring to the state's, the economy's, or the individual's control over the digital (Floridi, 2020; Moerel & Timmers, 2021). Based on their ethnographic work, Couture and Toupin (2019) have disaggregated perspectives on sovereignty "when referring to the digital" even further. They have identified (i) *digital sovereignty of governments and states*, as a nation's control over digital infrastructures, (ii) *cyberspace sovereignty*, as the notion that globalized networks transcend state sovereignty, (iii) *indigenous digital sovereignty*, as a notion from an indigenous perspective regarding control over cultural data, (iv) *the digital sovereignty of social movements*, as a contrasting notion to the *digital sovereignty of governments and states*, aimed at creating viable alternatives to commercial or state-sponsored digital infrastructures, and (v) *personal digital sovereignty* as a notion that "refers to the control of an individual over their data, device, software, hardware, and other technologies" (Couture & Toupin, 2019). This contribution mostly focuses on the fourth and fifth conception; hence, we would like to advocate for stronger consideration of individual or citizen sovereignty, referring to the notion that in democratic states, "the people is the sovereign" (Merkel, 2020).

Consequently, we do not ask what it takes to have sovereignty over the digital—that is, infrastructures, tools, technologies, and data—but rather look at how the digital may help individuals to exert sovereignty. To the best of our knowledge, most of the discussion surrounding digital sovereignty deals with control *over* the digital, while much less has been said about how to exert sovereignty *via* the digital. Granted, the latter may not be what is commonly associated with the term *digital sovereignty*. As a solution, we propose to use the term *digitally aided sovereignty* when referring to the digital as a facilitator of a citizen's or person's legitimate authority in a democratic state. However, the two notions seem to be interrelated to some degree, because often sovereignty *over* the digital is, in fact, a prerequisite for the realization of sovereignty *via* the digital. The point is not to criticize the term "digital sovereignty"[1] but to offer a fresh and argumentative perspective on what may guide good e-government solutions.

We will proceed by discussing how efforts in e-democracy and e-government may be failing to realize participatory value and thereby strengthening administrative and governmental accountability. We will then argue that adopting *digitally aided sovereignty* as a guide for the e-government transformation would be more clearly aligned with these goals. We conclude by outlining potential directions to take.

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[1] Others have done a far more proficient job at this; for instance, (Moerel & Timmers, 2021; Pohle & Thiel, 2020, 2021).

2 E-DEMOCRACY AND E-GOVERNMENT: QUO VADIS?

The *Memorandum on E-Government* defines e-government as "the execution of processes of public opinion formation, decision-making, and performance of functions in politics, state, and administration with the intensive use of information technology" (GI and VDE 2000). To a large extent, this definition encompasses e-democracy, which is about "citizen participation through [information and communications technology] to support legitimate representation of citizens in a democratic society" (Christiansen, 2010). However, we distinguish between e-government and e-democracy, because, in practice, the term e-government is arguably less concerned with participation or in aiding individuals in living out their own sovereignty via electronic services (Grönlund, 2010) than would be necessary for the purposes of this contribution. For instance, while the definition of e-government presented by GI and VDE is very broad, the OECD has categorized definitions into four types, of which only one includes a notion of improving government; none of these contains an explicit reference to participation. From this starting point, we will attempt a brief characterization of current developments.[2]

2.1 E-GOVERNMENT IS TRAPPED IN THE PROVIDER/CONSUMER PERSPECTIVE

Germany has planned to have digitally transformed all 575 of its public services by 2022, which, according to Mergel (2021), is a more ambitious agenda than is evident in any other country. While there may be more than just a few delays, this figure points to the urgent need to critically assessed the directions taken. After all, inertia—resulting from both human agents as well as organizational, political and technological factors—is not only impeding or delaying the initial transformation *towards* the digital (see, e.g., Friesike & Sprondel, 2022; Mokyr, 2000; Schmid et al., 2017) but may also slow down or prevent potentially necessary corrections *after* its deployment.

Hence, a look at the report on implementing digitalization in Germany (*Digitalisierung gestalten – Umsetzungsstrategie der Bundesregierung*, 2020) may shed some light on the current situation. On the subject of the "modern state," the report lists two foci: the state as a service provider and the digitalization of public administration. The former implies a business-like conceptualization of the relationship between the citizen and the state. Indeed, the "Digital Single Market Strategy for Europe" (European Commission, 2015) claims that it is "crucial to increasing cost-efficiency and quality of the services provided to citizens and companies" and proposes the "once only" principle (Pernice, 2016). The "once only" principle essentially refers to secure ways to reuse data provided by

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[2] We will focus on developments in Germany. However, we believe that most may hold true in other countries as well.

citizens, effectively reducing the amount of contact required between citizens and public agencies. Indeed, the projects listed in Germany's digitalization report include the establishment of an e-payment processing platform for administrative services, online portals for health information, or digitalized backends that connect different administrative agencies.

While there is much to be said for increasing transparency or making it easier for citizens to (digitally) contact the public administration, we concur with Pohle and Thiel (2020), who write that in "many instances, citizens are being reduced to consumers of digital services rather than valued in their capacity as democratic citizens." Bekkers and Zouridis (1999) go even further and argue that there is a risk of destroying active political engagement by citizens if they are only viewed as consumers. It seems clear that the transformation towards digital public administration does not aim to create increasingly participative processes. There are thus grounds to hope that, unlike in the UK almost two decades ago (Hazlett and Hill 2003), moves toward e-government will not just exacerbate the shortcomings of offline public administration in the online world. However, successful endeavors in the fields of e-participation and e-democracy—in parallel to the digitalization of public administrative services—will determine whether citizens are really just viewed as consumers. After laying out how approaches in e-democracy seem to be few and far between and how they are failing to drive public engagement, we will continue making a case for integrating participation into digital public administration.

2.2   E-DEMOCRACY IS FAILING TO ENGENDER INCREASED PARTICIPATION

Disappointingly, with regard to its second focus, the report "Digitalisierung gestalten" (2020) only lists a single project that refers to "digital participation and forms of online dialog." All other projects are either educational, informational, or internal to administrative agencies. On closer inspection, the "online dialog" turns out to be the respective federal ministry's use of social media and the use of communication via messenger apps. Hence, little seems to have changed in the years since Winkel (2007, p. 14) attested that in Germany "applications enabling result-oriented participation of citizens in political decision-making processes are encountered only as rare exceptions, even on the local level." A literature review commissioned by the European Parliament's Science and Technology Options Assessment Panel (STOA) found that e-democracy has been developing at a much slower pace than e-government (European Parliament. Directorate General for Parliamentary Research Services (DGPRS). 2017a, p. 56). The study comes to disillusioning conclusions, stating that "it appears that, at times, projects that at first glance appear to be participative turn out not to be consultative or deliberative in nature, but have the objective of informing citizens about decisions that have already been made" (European Parliament. DGPRS. 2017b, p. 9). One of the reasons

mentioned for this is the "often experimental character" (European Parliament. DGPRS. 2017b, p. 11).

According to Chadwick and May (2003) and later confirmed in a review by Madsen, Berger, and Phythian (2014), the lack of effort in advancing e-democracy can be attributed to the widespread adoption of a "managerialism" stance, which mainly focuses on the efficient delivery of information and services and rests on the assumption that the (rapid) provision of information equates to having an open government. We suggest that this may still hold true today and that this mindset lacks an emphasis on advancing consultative or participative practices, which may further explain the gap between e-democracy and e-government.

A complete analysis of why e-democracy and successful formats for e-participation have failed to prevail is beyond the scope of this contribution, and many ideas can be found in the European Parliament's "Prospects for E-democracy" study summary (European Parliament. DGPRS. 2017b). Certainly, issues in hardware accessibility, digital and administrative literacy gaps, and socio-economic hurdles have prompted slow adoption of both e-government and e-democracy (Mergel, 2021). As Winkel (2007, p. 8) writes, "[w]hosoever wants more participation, must consider that participation procedures can cause high expenditures of time and money." Of course, this extends to those participating. There are, of course, impressive examples and prototypes. For instance, Herlo, Stark, and Bergmann (2021) have devised a hybrid (real-world/virtual) artifact for "more inclusive modes of participation in urban development projects".

However, participation has not yet been integrated on a systemic level—for instance, it has not been included in the practices of digitalized public administration. In the words of a report of the Scientific Foresight Unit (European Parliament. DGPRS. 2017b, p. 11), "the lack of any impact on decision making is one [of] the most striking findings." There is work on integrating the citizen perspective when designing online public services (Mergel, 2021, p. 343), but ways of using e-government for empowerment by offering services that facilitate each individual's capacity to act and participate as a democratic citizen have yet to manifest.

3 FROM DIGITAL SOVEREIGNTY TO DIGITALLY AIDED SOVEREIGNTY—A GUIDE FOR THE e-GOVERNMENT TRANSFORMATION?

In practice, the term "digital sovereignty" seems to imply a strategic focus on building competencies and increasing knowledge regarding the digital. Funding programs have also focused on creating new ways of interaction in the name of digital sovereignty. For instance, Germany's Federal Ministry of Education and Research issued a call for proposals in 2019 for "Human Technology Interaction for

Digital Sovereignty" with the goal to "promote the development of new digital forms of interaction and human-technology dialogs conducive to learning for the reflective handling of data and digital technologies." (Germany's Federal Ministry of Education and Research 2019, own translation). While the ultimate goal has been to increase the sovereignty of citizens to handle their data, the means seem to be narrowly focused on educational approaches. This indicates a rationale that seems to equate enhanced knowledge about data flows, protection and usage with increased control over the digital—not unlike Chadwick and May's (2003) assessment of the "managerialism" approach to e-government. The selection of research projects that received funding seems to confirm this: They include approaches that seek to improve the capacities "of adolescents to secure their data via micro games" and strengthen the ability of "less technologically affine people […] to use electronic health records" as well as approaches to devise "data visualizations [that] should allow users to sovereignly decide which products to use" or "competency-enhancing teaching and learning scenarios" ("Mensch-Technik-Interaktion für Digitale Souveränität" 2020, own translations). These projects envision little in terms of allowing citizens to exert actual control over data, since they limit themselves to developing informational and educational systems, which appear to be mainly geared towards the acceptance of novel digital practices rather than empowering citizens.

However, if we conceive of digital sovereignty as an extension of legitimate power (sovereignty) into the digital realm, this digital realm might be conducive to enabling citizens to exert their rightful sovereignty itself instead of only exerting sovereignty over the digital. With regard to e-government, this demands a critical assessment of how the potential of digital platforms and tools can be harnessed to increase opportunities to participate in an inclusive manner.

In the vein of such *digitally aided sovereignty*, we would like to propose that, at least in some ways, e-democracy and e-participation should be thought of as integrated into e-government services. This would refocus e-government from relying on citizens' sovereignty *over* the digital to being driven by aiding citizens' sovereignty *via* the digital. The latter does not devalue the need for the former. On the contrary, digitally aided sovereignty may well be seen as subsidiary to digital sovereignty. However, a shift in emphasis when conceptualizing e-government practices would clearly underscore that the goal is firmly set on increasing citizens' sovereignty.

Authors such as Pratchett (2006) make a case that e-democracy and e-government have distinct modes of operation and should be approached very differently despite their similarities. On some level, we concur. Some public services should not be bloated due to requests for participation but should instead be precisely framed and to the point. However, given the hesitant adoption of e-democracy approaches and the lack of a clear impact, it stands to reason that encounters with public administrations may be about more than just executing a specific administrative task. The next section

sketches out a few ideas and possibilities for integrating participatory elements into e-government systems following the idea of digitally aided sovereignty.

4 POTENTIAL DIRECTIONS TO TAKE

Even though this contribution can only provide a cursory sketch, in the following, we'd like to outline what it could mean to take the idea that e-government practices should be guided by digitally aided sovereignty seriously, a notion that would hence extend to the digitalization of public administration services. It proceeds from Pernice's (2016) observation that "strengthening the relationship between the citizens and their political institutions and leaders, be it at local, at regional, at national or at the European level has yet to be explored."

- **Integrating participatory and consultative elements into specific digitalized public administration services:** Clearly, by envisioning encounters with digital public administration within virtual or hybrid settings, digitally aided platforms must extend beyond the educational. Visualizations of data flows (Stowers, 2013) or electronic forms could provide the option of leaving item specific feedback as a means of implementing a more consultative approach. This could address the complaint that the topic on which an e-consultation is being run is too broad (European Parliament. DGPRS. 2017b, p. 9). Possibilities for consultations that are placed right at the point where a specific associated service is used may alleviate this issue.

- **Integrating decision elements into educational approaches:** Digitally aided sovereignty could be expanded by simply extending educational approaches currently developed to increase digital competencies. For instance, tools for exploring and visualizing data flows between public agencies could integrate simple interfaces that would allow users to refuse specific data transfers in accordance with citizens' rights. Even though such designs may go against the "once only" doctrine, citizens could even be asked to explicitly allow certain data transfers within interfaces that visualize flows and even highlight implications. Instead of hiding away what public administration agencies do for citizens, public agencies may elicit more impactful engagement by actually requiring citizens to understand and act upon certain administrative duties and workflows. This would require a delicate balance to be struck, as increased demands on effort and time may lead to undue hardships for the marginalized. A framework of tolerant paternalism (Floridi, 2015) that both boosts citizen's information level and prompts explicit choices for their benefit could guide implementation.

- **Devising public administration services as encounters from the perspective of experience design:** Folk wisdom has it that administrative duties and interactions with public

administration itself are off-putting, tedious, and often experienced in terms of "them against us," rather than in a sustained atmosphere of cooperation. However, there may be ways to design encounters with administrations within a framework of mutual responsibility that helps citizens to exert their sovereignty. Again, this may possibly mean loosening up on the "once only" dogma and specifically promoting additional virtual, real, or hybrid encounters with public administrations. If supported by digital tools that are easy to use, unintrusive, but effective, administrative duties can become the basis for respectful encounters and perhaps increase the willingness to participate. The design of interactions must make this tangible and take up the "[…] responsibility of a democratic government to help furnish whatever services and resources are needed to prepare citizens for active, effective, and intelligent engagement", (Schuler, 2020, p. 5).

- **Supporting a civic deliberative community:** Schuler (2020, p. 8) writes that "citizens need civic culture and they need civic infrastructure." Such an approach could be used to create platforms for citizen exchange, deliberation and voting on local developments, petitions, suggestions, and similar ways to help citizens exert power through self-organization. Imagine apps that integrate access to administrative services and have communication functions that enable citizens to ask for help, discuss with each other, propose changes, and provide feedback.

The above list may appear mundane, and it is only a brief sketch that can surely be refined through participatory development frameworks. What is essential to take this further, however, is to approach the division of e-government services through a lens focused on *digitally aided sovereignty*.

5 CONCLUSION

This contribution is an attempt at elaborating on the utility of adopting the notion of digitally aided sovereignty as a guide for the e-government transformation. We have tried to elucidate that a novel stance towards the digitalization of public administration may be necessary to aid in realizing practical and increased participation and consultation. Considering the current state of e-democracy and e-government, this stance needs to be pragmatic instead of overly positivistic. We have sketched examples of practices that use digital technology to provide public services and take citizens seriously in their democratic capacity—examples of what we call digitally aided sovereignty in e-government. While keeping the goal of reducing social inequity firmly in sight, ironically, this may mean more rather than fewer encounters with public administration. In fact, this is where we see untapped potential for increased participation.

6 REFERENCES

1. Chadwick, A., & May, C. (2003). Interaction between States and Citizens in the Age of the Internet: "e-Government" in the United States, Britain, and the European Union. *Governance*, *16*(2), 271–300. https://doi.org/10.1111/1468-0491.00216

2. Christiansen, J.-A. (2010). E-Democracy. In H. Rahman (Ed.), *Handbook of Research on E-Government Readiness for Information and Service Exchange* (pp. 271–294). IGI Global. https://doi.org/10.4018/978-1-60566-671-6.ch014

3. Couture, S., & Toupin, S. (2019). What does the notion of "sovereignty" mean when referring to the digital? *New Media & Society*, *21*(10), 2305–2322. https://doi.org/10.1177/1461444819865984

4. Digitalisierung gestalten – Umsetzungsstrategie der Bundesregierung (p. 224). (2020).

5. European Commission. (2015). *A Digital Single Market Strategy for Europe* (Communication, p. 192). European Commission.

6. European Parliament. Directorate General for Parliamentary Research Services. (2017a). *Prospects for e-democracy in Europe: Literature review, Part I.* Publications Office. https://data.europa.eu/doi/10.2861/49654

7. European Parliament. Directorate General for Parliamentary Research Services. (2017b). *Prospects for e-democracy in Europe: Study summary.* Publications Office. https://data.europa.eu/doi/10.2861/201697

8. Floridi, L. (2015). Tolerant Paternalism: Pro-ethical Design as a Resolution of the Dilemma of Toleration. *Science and Engineering Ethics*. https://doi.org/10.1007/s11948-015-9733-2

9. Floridi, L. (2020). The Fight for Digital Sovereignty: What It Is, and Why It Matters, Especially for the EU. *Philosophy & Technology*, *33*(3), 369–378. https://doi.org/10.1007/s13347-020-00423-6

10. Friesike, S., & Sprondel, J. (2022). Träge Transformation. Welche Denkfehler den digitalen Wandel blockieren. Reclam.

11. Germany's Federal Ministry of Education and Research. (2019, January 3). *Richtlinie zur Förderung von Forschung und Entwicklung auf dem Gebiet "Mensch-Technik-Interaktion für digitale Souveränität".* https://www.bmbf.de/bmbf/shareddocs/bekanntmachungen/de/2019/03/2355_bekanntmachung

12. Gesellschaft für Informatik (GI) & Verband Deutscher Elektrotechniker (VDE). (2000). Electronic Government als Schlüssel zur Modernisierung von Staat und Verwaltung. Ein Memorandum des Fachausschusses.

13. Grönlund, Å. (2010). Ten Years of E-Government: The 'End of History' and New Beginning. In M. A. Wimmer, J.-L. Chappelet, M. Janssen, & H. J. Scholl (Eds.), *Electronic Government* (Vol. 6228, pp. 13–24). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-14799-9_2

14. Madsen, C. Ø., Berger, J. B., & Phythian, M. (2014). The Development in Leading e-Government Articles 2001-2010: Definitions, Perspectives, Scope, Research Philosophies, Methods and Recommendations: An Update of Heeks and Bailur. In M. Janssen, H. J. Scholl, M. A. Wimmer, & F. Bannister (Eds.), *Electronic Government* (Vol. 8653, pp. 17–34). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-662-44426-9_2

15. *Mensch-Technik-Interaktion für digitale Souveränität*. (2020). Mensch-Technik-Interaktion Für Digitale Souveränität – Geförderte Projekte. https://www.interaktive-technologien.de/foerderung/bekanntmachungen/digisou

16. Mergel, I. (2021). Digital Transformation of the German State. In S. Kuhlmann, I. Proeller, D. Schimanke, & J. Ziekow (Eds.), *Public Administration in Germany* (pp. 331–355). Springer International Publishing. https://doi.org/10.1007/978-3-030-53697-8_19

17. Merkel, W. (2020, January 4). Who is the sovereign? *Berlin Social Science Center, Coronavirus and Its Impact*. https://www.wzb.eu/en/research/corona-und-die-folgen/wer-ist-der-souveran

18. Moerel, E. M. L., & Timmers, P. (2021). *Reflections on Digital Sovereignty* (EU Cyber Direct, Research in Focus Series). https://ssrn.com/abstract=3772777

19. Mokyr, J. (2000). Innovation and Its Enemies: The Economic and Political Roots of Technological Inertia. In M. Olson & S. Kähköhnen (Eds.), *A Not-so-dismal Science*. Oxford University Press. https://doi.org/10.1093/0198294905.001.0001

20. Pernice, I. (2016). E-Government and E-Democracy: Overcoming Legitimacy Deficits in a Digital Europe. 2016–01, 29. http://dx.doi.org/10.2139/ssrn.2723231

21. Pohle, J., & Thiel, T. (2020). Digital sovereignty. *Internet Policy Review*, *9*(4). https://doi.org/10.14763/2020.4.1532

22. Pohle, J., & Thiel, T. (2021). Digitale Souveränität: Von der Karriere eines einenden und doch problematischen Konzepts. In C. Piallat (Ed.), *Digitale Gesellschaft* (1st ed., Vol. 36, pp. 319–340). transcript Verlag. https://doi.org/10.14361/9783839456590-014

23. Pratchett, L. (2006). *Understanding e-democracy developments in Europe* (CAHDE(2006) 2 E; Project "Good Governance in the Information Society"). Council of Europe, Directorate General of Political Affairs.

24. Schmid, A. M., Recker, J., & vom Brocke, J. (2017). *The Socio-Technical Dimension of Inertia in Digital Transformations*. Hawaii International Conference on System Sciences. https://doi.org/10.24251/HICSS.2017.583

25. Schuler, D. (2020). Can Technology Support Democracy? *Digital Government: Research and Practice*, *1*(1), 1–14. https://doi.org/10.1145/3352462

26. Stowers, G. (2013). *The Use of Data Visualization in Government* (p. 49). IBM Center for The Business of Government.

27. Winkel, O. (2007). Electronic Government in Germany – a key future prospect, but expectations are exaggerated. In K. Zapotoczky & C. Pracher (Eds.), *Administration Innovative* (pp. 163–186).