Bory, Paolo; Zetti, Daniela (Hrsg.): *Digital Federalism. Information, Institutions, Infrastructures (1950–2000)*. Basel: Schwabe Verlag 2022. ISBN: 978-3-7965-4509-2; 176 S.

Rezensiert von: Jonas Schmid, Institut für Politikwissenschaften, Universität Bern

The collective volume entitled *Digital Federalism: Information, Institutions, Infrastructures*, edited by Paolo Bory and Daniela Zetti, provides six intriguing tales of federalism. These contributions describe the administrative tugs-of-war between entities of different governmental levels in Switzerland and Germany regarding the procurement, installation, and operation of early or prestigious digital technologies. The editors have managed to put together a chronologically set up volume that is not repetitive in the least: The diversity of approaches—from processing the ideological underpinnings of the term „information" to detailed accounts of multi-level (non-)coordination—is undoubtedly the book's major strength. In this multitude of stories, places, and objects of investigation, the editors find a common thread, namely the various contributions' discussion of „the three a's," i.e., „automation, authority, and autonomy" (p. 7).

The book begins with Laura Skouvig's investigation into the performative power of the contemporary understanding of „information" as a pre-existing (and quantitatively measurable) container for communication that is intimately tied to the emergence of the post-war nation-state. She paints a convincing portrait of the royal and bureaucratic uses of information and the evolving nature of controlling subjects and citizens. An exploration of ideologies attached to information in Skouvig's article then gives way to Nick Schwery's treatise on planning the procurement and installing the first „computer" in the Swiss federal administration at the end of the 1950s. The contribution shows that rather than the computer providing ready-made solutions to pre-existing problems in the federal administration, this administration needed severe restructuring in anticipation of the computer's arrival to make it usable for the federal departments. Schwery also argues that the computer has brought along with it a change in hierarchical, bureaucratic management, moving towards much more project-oriented teamwork.

Moritz Mähr then details the coordination and politics involved in centralizing and automating the Central Aliens Register in Switzerland between 1964 and 1971. Political pressure due to the initiatives of „overforeignization," as well as cantons not wanting to lose autonomy in how they grant residence and work permits, determined negotiations over the registry's establishment. Mähr, as opposed to earlier and later contributions, sees in federalism a patchwork of solutions whose harmonization presents an almost insurmountable obstacle to efficiency. In the subsequent article, Daniela Zetti provides the backdrop of the federal council's 1985 „special measures" on higher education and research in IT. She describes how the cantonal universities' cooperation against the federal state was active in building up the Swiss Federal Institute of Technology in Lausanne (EPFL). Cantons were afraid of the federal state reaping the benefits if there was greater federal involvement in their universities. However, they simultaneously felt the functional pressure of needing „overarching" investments into their infrastructures. In this political embedment, there was a window of opportunity for a technical network – SWITCH.

The following two contributions deal with „conspicuous computing" (p. 118), procuring and establishing prestigious supercomputing infrastructure, and its coordinative and political implications. David Gugerli and Ricky Wichum offer an account of how the University of Stuttgart succeeded in establishing a supercomputing center with the help of regional politicians and innovative financing instruments despite federal and local constraints. They persuasively argue that for such centers to be built and operated, a „unique techno-political cluster or interests" (p. 133) must be present.

The last contribution by Paolo Bory, Ely Lüthi, and Gabriele Balbi, then focuses on the politics and institutional conditions of establishing such a supercomputing center in Switzerland, the CSCS, built in Manno in 1991 and moved to Lugano in 2012. The authors assert

© Clio-online, and the author, all rights reserved.

that the Swiss Federal Institute of Technology in Zurich (ETHZ) led the center's planning and operation not out of selflessness, but instead for the added scientific value and industrial cooperation with Northern Italy, whereas federal authorities put the added value in terms of political and economic solidarity, hoping to boost the competitiveness of Switzerland's third language-region.

To a person my age—having only experienced the last analog technologies in the form of tape recorders and VHS tapes as a child—there is much value in delving into the institutional, organizational, and political preconditions that allowed for the flourishing and dominance of digital technology in economically advanced federations in Western Europe. I especially want to underline what has become much clearer to me when reading the book: The drivers leading to adoption of digital technologies in Switzerland have primarily been political entrepreneurs and cooperative or antagonist institutions in continual interaction. These entrepreneurs managed both correct and incorrect anticipations of what solutions the technology might bring to equally unforeseeable problems. „Agency" seems to have been as much „trial and error" as it has been the result of „planning" or of the institutional context. „Structure", in turn, is attributed varying descriptive and explanatory weight in the contributions.

Nonetheless, the distinctive feature of federal (or multi-level) systems clearly comes across in the individual chapters. Be it the first mainframe computer of the federal administration (Schwery), the first large-scale IT-harmonization project on migration data (Mähr), a new university computer network (Zetti), supercomputing in the canton of Ticino (Bory, Lüthy and Balbi), or a similar prestige-project across the border in Baden-Württemberg (Gugerli and Wichum), there are constant struggles around the „appropriate" balance of powers between sub-state entities and the central government. Nowhere have I found these „power games" in this rather new and still emerging field of digital policy better illustrated than in the chapters of this book.

However, I believe it is necessary to raise two conceptual points of critique. The first and most significant point is the imprecise use and application of the concept of „digital federalism." The editors were content with writing that „no single definition of federalism is possible" (p. 8) and then nail down their understanding of it as consisting of a balance between „automation, authority and autonomy" (p. 7). In the very beginning, they write that federalism is about „shared sovereignty" (p. 6), a „process" (p. 6), as „not synonymous with the nation-state" (p. 9), or describe it as a „balance between institutional and economic forces" (p. 15). The contributors view digital federalism as an „emergent field of techno-scientific practice" (p. 117) or regard „national [digitalization] policies and sociotechnical imaginaries" (p. 151) to be its cornerstones. Moreover, digital federalism is either referred to as a utopia (p. 12), as something that can actually be implemented „using digital means" (p. 14), or as something resembling a multistakeholder platform (p. 15). Long story short: The multiplicity of use makes it difficult to grasp the terminological, conceptual, and temporal boundaries of the title-giving concept.

The multiplicity of use is also well illustrated when evaluating the conceptual stringency of the „three a's" in the contributions. In fact, there is only one contribution that clearly deals with automation (Mähr); the others deal with it implicitly at most. The first contribution (Skouvig) does not even mention federalism at all. The chapter discussing the adoption of the first computer in the federal administration (Schwery) does not address (constituent) subnational units. Authority, however, is visible in all contributions—be it as the control of narratives (Skouvig), as decision power (Schwery; Mähr; Zetti), or as „soft power" (Zetti; Gugerli and Wichum; Bory, Lüthi, and Balbi). Then again, the ETHZ Council (Bory, Lüthi, and Balby) is also said to have significant authority; a body that is not a typical player in Swiss multi-level politics per se and can therefore hardly be part of federalist negotiations understood as „power-plays" between coordination and autonomy between governmental actors of different territorial levels. Although autonomy is announced as the third cornerstone of the contributions, it is often only discussed as a factor of administra-

© Clio-online, and the author, all rights reserved.

tive politics, rather than as a characteristic of the multi-level context. As a political scientist, I would have expected a more systematic tracing of autonomy to federalism rather than only to administrative implementation politics. Moreover, coordination and cooperation seem to be discussed much more prominently than autonomy (e.g., Zetti). Hence, an overarching catchphrase-summary of the book being about „authority, coordination, and cooperation" would fit the story better. For example, teasing out the explanatory relevance of a multi-level polity could have been done in a more rigorous way, perhaps in the „lessons learned"-conclusion synthesizing the articles going well beyond „the three a's."

Second, as a political scientist, I am missing a deeper theoretical grounding of „digital federalism" in the available literature. In the volume, illustrations of „digital federalism" seem to be restricted to cases of multi-level administrative politics and/or public-private partnerships in federal systems. However, political scientists have used the label of „digital federalism" in a way that could include many more cases and research set-ups. To give an example, Robert Gibbins[1], coining the term in the Canadian context, used digital federalism to analyze expected shifts in power between governmental levels due to the growing societal use of digital communication technologies ICTs. Neither is there a mention about classical theoretical accounts describing federalism as an interplay between „self-rule" and „shared rule"[2], nor do the contributions assess the impact of „administrative federalism" that is the modus operandi in Switzerland[3]. Administrative federalism denotes the principle wherein implementation of central policies is generally the task of substate entities.

However, these two points of critique should, in no way, lessen the substantial contribution of the book to the history of public adoption of digital technologies in Switzerland. The collection of essays provides several captivating stories of cooperation, dreams of efficiency, competition policy, political entrepreneurship, and (governmental) power. As such, I highly recommend this book to tech-interested readers with a soft spot for reading about organizational struggles.

HistLit 2022-4-027 / Jonas Schmid über Bory, Paolo; Zetti, Daniela (Hrsg.): *Digital Federalism. Information, Institutions, Infrastructures (1950–2000)*. Basel 2022, in: H-Soz-Kult 14.10.2022.

[1] Robert Gibbins, Federalism in a Digital World, in: Canadian Journal of Political Science 33/4 (2000), pp. 667–689.

[2] Daniel Elazar, Exploring Federalism, 1st ed., Tuscaloosa 1987.

[3] Thomas Hueglin / Alan Fenna, Comparative Federalism. A Systematic Inquiry, Toronto 2015.

© Clio-online, and the author, all rights reserved.