The Digitalization of Local Public Services: Evidence from Germany

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16 Länder; Land parliaments (*Landtage*); Land governments (average pop.: 5.1 Mio.)

16 Land administrations*

- **Länder administration**
  - Highest Land authorities (e.g. ministries)
  - Higher Land authorities (e.g. environmental authorities)
  - Intermediate Land authorities (e.g. administrative districts)

- **Lower Land authorities** (e.g. tax offices)

Local self-government

- 294 counties
  - Average pop.: 188,767
- 98 county-free cities
  - Average pop.: 248,051

Inter-municipal level
  - (1,254 inter-municipal/ local government associations)

- 11,024 municipalities
  - Average pop.: 5,063

Federal administration*

- Highest federal authorities (14 federal ministries; Federal Chancellery; Federal Audit Office)
- Higher federal authorities (e.g. federal police headquarters)
- Intermediate federal authorities (e.g. regional finance offices)
- Lower federal authorities (e.g. district recruiting offices)

Kuhlmann/Wollmann 2019
Germany’s position in international rankings (Digitalization of Public Administration)

E-government over time: Germany in an EU comparison

Obstacles to digitalization in Germany

• Numerous reasons for digitalization backlog
  • Legalistic administrative culture ➔ high number of written form and documentation requirements + authentification and attendance requirements (norm screening by the federal government has so far been unsuccessful)
  • Historically rooted fear of the "transparent citizen" ➔ restrictive data protection regulations; no modernization of the data protection law and privacy rules
  • Technical/structural problems: lack of basic digital components, e.g. for "once only" (need of comprehensive modernization of registries; current legislative proposal ➔ intense political debates because of privacy concerns)
  • Capacity problems (personnel, IT/process know-how)
  • Missing overall digital architecture in the federal system (decentralized systems and solutions do not fit/connect to central/standardized digital components)
  • Governance problems in the federal multilevel system
How Digitalization Policy is organized in the German Federal System

1. Umsetzung der 5/5 OZG-Leistungen
   - Single Digital Gateway: Einheitliches digitales Zugangstor zu den Verwaltungsleistungen der EU und der Mitgliedsländer
   - Bundeskanzleramt: Chef des Bundeskanzleramtes, Staatsministerin für Digitalisierung
   - Gruppe Digitalpolitik, IT-Steuerung

2. Verknüpfung der Portale aller Ebenen zu einem Portalverbund (inkl. Servicekonten)
   - IT-Rat: IT-Einsatzberatung Bund
   - Bundesministerien: AA, BK, BMBF, BMEL, BMS, BMF, BMFSFJ, BMWI, BMJV, BMV, BUND

Prinzipien
- Digital First (digitale Verfahren als Regelfall)
- Once Only (Daten nur noch einmal angeben)

Zielsetzungen bis 2022
- Single Digital Gateway-VO (~ EU-OZG) bis 2023
- Bundesinnenminister: CIO der Bundesregierung
- Abteilung Digitale Gesellschaft
- Klarung der Datenschutzfrage bis Ende 2019

Funktioniert das?
- Es braucht ein echtes politisches Controlling!
- Zu wenig Personal
- КоSIT
- IT-Koordinator
- IT-Planungsrat: Bundes-CIO + Landes-CIOs
- Kommunale Spitzenverbände

294 Landkreise, ca. 11.000 Gemeinden

Leitungs- und Unterstützungsfähigkeit muss erhöht werden.

Bundesministerien, Länder und Kommunen entwickeln gemeinsam Lösungen gemäß OZG-Umsetzungskatalog.
Dafür bleiben nur noch 3 Jahre Zeit!

Bund gibt 500 Mio. Euro

Sind alle nötigen Mittel eingeplant (1,5 Mrd. Euro)?
Collaboration in the Federal System: The Online Access Act as a Multi-Level Challenge

- IT systems designed for interoperability and networking across departments and levels without media discontinuity
- Digitalization as a multidimensional "collective work" that cannot be processed by one level only (multi-level problem); consequently:
- Process of digital transformation can only be implemented in administratively interwoven structures, since:
- One level cannot make decisions and advance processes without the involvement of the other level(s)
- Thus, there is an institutionalized necessity to cooperate:
  - Horizontally ➔ cross-departmental coordination necessary (e.g. 5 ministries responsible at federal level; but mostly "negative coordination")
  - Vertically across all levels of government (e.g. “IT planning council” as an intergovernmental body of the federal and Länder governments)
- **Online Access Act of 2017** obliges the federal, Länder and local governments to offer 575 services digitally until 2022 (14 thematic areas)
## Implementation Status of the Online Access Act – as of October 2019

<table>
<thead>
<tr>
<th>Themengebiet</th>
<th>Bund</th>
<th>Land</th>
<th>Status Themengebiet</th>
<th>Planung abschliessen!</th>
<th>Zwischenziel festlegen</th>
<th>Nur noch 3 Jahre!</th>
<th>Umsetzung / Gesetzefolge, Software Rollout</th>
<th>Bundesweite Verfügbarkeit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familie &amp; Kind</td>
<td>BAV</td>
<td>SL</td>
<td>abgeschlossen</td>
<td>abgeschlossen</td>
<td>2019</td>
<td>bis 2022</td>
<td>ELFG Gesetz in Planung</td>
<td>bis 2022</td>
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<td>Querschnitt</td>
<td>BAV</td>
<td>SL</td>
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<td>2019</td>
<td>bis 2022</td>
<td>Rollout Wohnfeld bis Dez.2019</td>
<td>bis 2022</td>
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<td>SL</td>
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<td>2019</td>
<td>bis 2022</td>
<td>Umsetzung begonnen</td>
<td>bis 2022</td>
</tr>
<tr>
<td>Ein- und Auswanderung</td>
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<td>SL</td>
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<td>2019</td>
<td>bis 2022</td>
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<td>abgeschlossen</td>
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<td>Umsetzung begonnen</td>
<td>bis 2022</td>
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<td>abgeschlossen</td>
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<td>bis 2022</td>
<td>Umsetzung begonnen</td>
<td>bis 2022</td>
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<td>SL</td>
<td>abgeschlossen</td>
<td>abgeschlossen</td>
<td>2019</td>
<td>bis 2022</td>
<td>Umsetzung begonnen</td>
<td>bis 2022</td>
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<td>Umsetzung begonnen</td>
<td>bis 2022</td>
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<td>abgeschlossen</td>
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<td>bis 2022</td>
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<td>Gesundheit</td>
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<td>abgeschlossen</td>
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<td>bis 2022</td>
<td>Umsetzung begonnen</td>
<td>bis 2022</td>
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<td>abgeschlossen</td>
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<td>bis 2022</td>
<td>Umsetzung begonnen</td>
<td>bis 2022</td>
</tr>
<tr>
<td>Mobilheit &amp; Räume</td>
<td>BAV</td>
<td>SL</td>
<td>abgeschlossen</td>
<td>abgeschlossen</td>
<td>2019</td>
<td>bis 2022</td>
<td>Umsetzung begonnen</td>
<td>bis 2022</td>
</tr>
</tbody>
</table>

Hier spielt die Musik!
Digitalization and the role of municipalities: Research Project on Local Public Services – Example of Local One Stop-Shops
Example of German Local One Stop Shops (LOCS)

- Organizational Units of Local Governments
- Mirror the tradition of functionally strong local governments in Germany with broad task profiles
- Entities of public service delivery closest to citizens
- Institutional invention of 1980s ➔ today in all cities with more than 15,000 inhabitants
- Bundle services in various fields of citizen-related services at “one stop” (single window access)
- Examples: passports, certificates of marriage/birth etc., registry affairs, driving licenses, car registration, parking permits, citizenship affairs, traffic fines etc.
- Quite advanced in terms of e-government
## Methods

**Case studies on digitalization: Freiburg, Mannheim, Karlsruhe**

**Case studies on Local One-Stop-Shops: Bochum, Mannheim, Karlsruhe**

In total 27 expert interviews

**Quantitative surveys:**

<table>
<thead>
<tr>
<th>Target group</th>
<th>Overall population</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Administration survey (every city &gt;15.000 inh.)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mayors</td>
<td>N = 721</td>
<td>n = 221, 30.7%</td>
</tr>
<tr>
<td>Staff councils</td>
<td>N = 746</td>
<td>n = 263, 35.3%</td>
</tr>
<tr>
<td><strong>Staff survey (Bochum, Karlsruhe)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One-Stop-Shop staff, Bochum</td>
<td>N = 75</td>
<td>n = 40, 53.3%</td>
</tr>
<tr>
<td>One-Stop-Shop staff, Karlsruhe</td>
<td>N = 135</td>
<td>n = 70, 51.9%</td>
</tr>
<tr>
<td><strong>Citizens survey (Bochum, Karlsruhe, Mannheim)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citizens Karlsruhe</td>
<td>Random sample 6000</td>
<td>n= 1171, 19.5%</td>
</tr>
<tr>
<td>Citizens Bochum</td>
<td>Random sample 2000</td>
<td>n = 418, 21%</td>
</tr>
<tr>
<td>Citizens Mannheim</td>
<td></td>
<td>n= 201</td>
</tr>
</tbody>
</table>
Current Hurdles of Digitalization in German LOCS

- Low political pressure towards strategic digital projects
- E-government initiatives sporadic/incremental;
- Lack of clear objectives regarding digital service delivery
- Lack of digitalization budgets, effective governance structures
- Confusion of (few) well-functioning services and (many) poorly working ones on local websites
  - Problem: “good” services/forms hardly to be found, because (many) “bad” ones hinder finding the (few) “good” ones
- Lack of digital marketing concepts in order to promote/advertise well-functioning services (those without media-break)
## What is „Digitalization“? The Staff’s Perspective

<table>
<thead>
<tr>
<th>Service Provided</th>
<th>Fully Relevant (%)</th>
<th>Quite Relevant (%)</th>
<th>Not Very Relevant (%)</th>
<th>Not at all Relevant (%)</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents scans and electronic storage systems</td>
<td>66,7</td>
<td>21,7</td>
<td>11,6</td>
<td>0,0</td>
<td>69</td>
</tr>
<tr>
<td>Converting to electronic records (eRecords)</td>
<td>47,8</td>
<td>37,7</td>
<td>13,0</td>
<td>1,4</td>
<td>69</td>
</tr>
<tr>
<td>Online appointment scheduling</td>
<td>63,8</td>
<td>29,0</td>
<td>5,8</td>
<td>1,4</td>
<td>69</td>
</tr>
<tr>
<td>Electronic response to citizens’ concerns</td>
<td>53,6</td>
<td>40,6</td>
<td>2,9</td>
<td>2,9</td>
<td>69</td>
</tr>
<tr>
<td>Complete electronic processing of One-Stop-Shops’ services</td>
<td>44,1</td>
<td>30,9</td>
<td>20,6</td>
<td>4,4</td>
<td>68</td>
</tr>
</tbody>
</table>

Source: Staff Survey Karlsruhe
Comparison expectations/experiences: The Citizens‘ Perspective

1 = not at all relevant; 2 = not very relevant; 3 = quite relevant; 4 = fully relevant

Demand n = 1083 to 1138; Experience n = 1029 to 1129

Citizen Survey Karlsruhe
## Digital Maturity

<table>
<thead>
<tr>
<th>Service</th>
<th>Information available online</th>
<th>Partially processed online (forms, emails)</th>
<th>Fully processed online</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passports</td>
<td>87%</td>
<td>21%</td>
<td>2%</td>
<td>210</td>
</tr>
<tr>
<td>Certificates (birth / marriage)</td>
<td>67%</td>
<td>44%</td>
<td>10%</td>
<td>101</td>
</tr>
<tr>
<td>Criminal record</td>
<td>75%</td>
<td>26%</td>
<td>23%</td>
<td>205</td>
</tr>
<tr>
<td>Registration of residency</td>
<td>80%</td>
<td>39%</td>
<td>3%</td>
<td>205</td>
</tr>
<tr>
<td>Authentication of certificates</td>
<td>96%</td>
<td>8%</td>
<td>1%</td>
<td>178</td>
</tr>
<tr>
<td>Dog tax registration</td>
<td>80%</td>
<td>33%</td>
<td>6%</td>
<td>118</td>
</tr>
<tr>
<td>Residents parking permitting</td>
<td>81%</td>
<td>27%</td>
<td>8%</td>
<td>84</td>
</tr>
<tr>
<td>Parking permit for people with disabilities</td>
<td>91%</td>
<td>18%</td>
<td>0%</td>
<td>87</td>
</tr>
<tr>
<td>Housing benefits</td>
<td>85%</td>
<td>30%</td>
<td>0%</td>
<td>54</td>
</tr>
<tr>
<td>Vehicle registration (only county-free cities)</td>
<td>83%</td>
<td>33%</td>
<td>10%</td>
<td>48</td>
</tr>
</tbody>
</table>

Source: city survey (mayors). Question: “Which services of your local one-stop shop are online available and to what extent?
## Dysfunctionalities of Digitalization: The Staff’s Perspective

<table>
<thead>
<tr>
<th></th>
<th>Fully &amp; quite relevant</th>
<th>Not very &amp; not at all relevant</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rather positive effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase of the transparency of processing status</td>
<td>67,2%</td>
<td>32,8%</td>
<td>64</td>
</tr>
<tr>
<td>Reduction of attachement to usual opening hours and working days</td>
<td>65,7%</td>
<td>34,4%</td>
<td>67</td>
</tr>
<tr>
<td>Reduction of processing time</td>
<td>62,3%</td>
<td>37,7%</td>
<td>69</td>
</tr>
<tr>
<td>Improvement of administrative processes</td>
<td>61,2%</td>
<td>38,8%</td>
<td>67</td>
</tr>
<tr>
<td>Reduction of workload</td>
<td>38,8%</td>
<td>61,2%</td>
<td>67</td>
</tr>
<tr>
<td><strong>Rather negative effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant availability</td>
<td>86,9%</td>
<td>13%</td>
<td>69</td>
</tr>
<tr>
<td>Technical problems</td>
<td>84%</td>
<td>15,9%</td>
<td>69</td>
</tr>
<tr>
<td>Difficulties with software, particularly due to poor quality of service providers such as computer centers, <em>bund or land</em></td>
<td>77,6%</td>
<td>22,4%</td>
<td>67</td>
</tr>
<tr>
<td>Additional processing time per case</td>
<td>76,4%</td>
<td>23,5%</td>
<td>68</td>
</tr>
<tr>
<td>Feeling of being controlled due to digitalization</td>
<td>72,3%</td>
<td>27,7%</td>
<td>65</td>
</tr>
<tr>
<td>Shifting working time from front to back office</td>
<td>67,7%</td>
<td>32,4%</td>
<td>68</td>
</tr>
</tbody>
</table>

Source: staff survey Karlsruhe.
## Dysfunctionalities of Digitalization: The Staff’s Perspective

### Changes in duration of proceedings in Local One-Stop Shops (last 5 years)

<table>
<thead>
<tr>
<th></th>
<th>Strongly &amp; fairly increased</th>
<th>Unchanged</th>
<th>Strongly &amp; fairly decreased</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of proceedings in general</td>
<td>51.7%</td>
<td>45%</td>
<td>3.4%</td>
<td>60</td>
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<tr>
<td>Duration of proceedings due to digitalization</td>
<td>69.5%</td>
<td>25.4%</td>
<td>5.1%</td>
<td>59</td>
</tr>
</tbody>
</table>

Source: staff survey Karlsruhe
## Dysfunctionalities of Digitalization: The Staff’s Perspective

### Changes in tasks, work intensity, availability and email traffic

<table>
<thead>
<tr>
<th></th>
<th>Strongly &amp; quite increased</th>
<th>No difference</th>
<th>Quite &amp; strongly decreased</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of tasks to complete</td>
<td>73.7%</td>
<td>16.4%</td>
<td>9.8%</td>
<td>61</td>
</tr>
<tr>
<td>Work intensity for the staff</td>
<td>89.7%</td>
<td>5.2%</td>
<td>5.2%</td>
<td>58</td>
</tr>
<tr>
<td>Constantly available online for the managers</td>
<td>58.6%</td>
<td>32.8%</td>
<td>8.6%</td>
<td>58</td>
</tr>
<tr>
<td>Work load via email traffic (back office)</td>
<td>82.3%</td>
<td>16.1%</td>
<td>1.6%</td>
<td>62</td>
</tr>
</tbody>
</table>

Source: staff survey Karlsruhe
Citizens' Motives for Expanding Online Services in: Generational Divide

Source: citizens survey Karlsruhe. Data for the category “very important”; n = 1102 to 1115
Citizens Views on Digitalization: Generational Divide

The use of online services is too complicated:
- 7.9% (18 to 29 yo)
- 16.5% (30 to 49 yo)
- 33.6% (50+ yo)

I need face-to-face consultancy:
- 9.9% (18 to 29 yo)
- 15.3% (30 to 49 yo)
- 25.5% (50+ yo)

Personal contact to the local administration is more important than online services:
- 2.0% (18 to 29 yo)
- 6.4% (30 to 49 yo)
- 17.5% (50+ yo)

**Reasons against expanding the online offer across age groups.** Source: citizen survey Karlsruhe. Values for the category “very important”; n = 1,103 to 1,121
Summary of the results
Expectations on digitalization vs. reality

- Citizens/employees predominantly in favor of more online services
- Time saving highest expectation (for 90% of citizens very/rather important)
- For 80% of citizens user-friendly online services central requirement to citizen-friendly citizens‘ office
- But: only 54% of the citizens see this requirement to be completely/partly implemented
- → 26% difference between demand and reality = significant discrepancy between expectations and reality
- Most requested/favored services for digitalization by citizens ≠ de facto offer
Expectations on digitalization vs. reality

➢ Information provision function (for less requested services) is prevalent; communication function is low; transaction function is rudimentary.

➢ Not a single service can be fully processed online in more than 23% of the cities (for criminal records).

➢ Not a single service can be carried out online uniformly in each Local One-Stop-Shop in the whole of Germany.

➢ Staff and citizens do not equally see transaction function as requirement for a citizens-friendly Local One-Stop-Shop (60% vs. 90%).
Citizens’ perspective

• Only 10% of the citizens recurs to electronic access to Local One-Stop-Shops ➔ Reasons?
• Half (49%) would not do without personal advice
• 39% generally prefer personal contact
• 89% of the citizens would fully/partially make use of digital services, if they were as easy to process online as in platforms like Amazon, Otto, Zalando, etc.
• Usability-problems of current online services: e.g. poor accessibility of infos on city portals; overloaded websites; badly working search functions; technical and legalist language; multiple media discontinuities
Distinctive generational effects:

➢ Time saving: (much) more important reason to make use of online services for the younger generation (81% of age group 18 - 29) than for the older one (53% of the over 50)

➢ Personal contact to city administration: less important for the young (8%) than it is for the older respondents (34%)

➢ “online services are too complex to use”: less agreement among the young respondents (2%) than the older ones (18%)
Staff’s perspective

Positive effects of digitalization:

➢ Higher transparency of processing status (67%);
➢ Loosening bound to usual opening time and work days (66%);
➢ Improvement in administrative processes (61%);
➢ Online appointment scheduling: a consistent “success model” (available in 33% of Local One-Stop-Shops; in 90% of the cities > 100,000 inh.)
➢ But: only 39% thinks workload was curbed
➢ Managers evaluate the effects of digitalization more positively than the staff
Staff’s perspective

Negative effects of digitalization

➢ are considered more relevant (61-87%) than the positive (61-67%)

➢ Due to digitalization the processing time increased (70%), decreased (5%)

➢ Constant availability: 87%; technical issues 84%; Additional processing time per case (76%); controllability (72%)

➢ Digitalization is considered to be a burden rather than a work relief

➢ Increasing workload because of back office emails processing (82%)

➢ Higher work pace; overloading; stress

➢ Shifting working time from front to back office without improving the amount of accomplished cases
Decentralization vs. Standardization: Typical Arguments

Standardization/Centralization

**Pro state-/federal solutions**
- Standardization should be pushed by state/federal governments → necessary for uniform service and usability standards (equal treatment of citizens)
- Uniform procedures specifically important for delegated state tasks performed by LGs
- Good examples of standardized digital services (e.g. car registration)
- Some LG managers welcome increased pressure by upper levels to push for more standardization

**Pro Local solutions**
- State/federal level actors too remote; they don’t grasp how things work in practice on the local level
- Suggestions on digital solutions must come from the local level, otherwise no improvements → bottom-up strategy
- Street-level knowledge indispensable for well functioning digital solutions
- Centralization to the disadvantage of effectiveness of local service delivery
Decentralization vs. Standardization

- Online Access Act aims at a standardization regime ➔ the federal government has been granted competences for this based on a constitutional amendment
- Debates about a standardization agenda to the ensure adoption of jointly developed digital solutions based on a joint digital architecture
- Yet, main actors in the digital laboratories of the Online Access Act are federal/state governments; municipalities underrepresented
- Key questions:
  - How to make existing digital solutions of (advanced) local governments compatible with new solutions (centrally) developed in digital laboratories of the Online Access Act?
  - How to roll centrally developed solutions out nationally and from one jurisdiction to another?
  - Problem: principle of voluntariness
  - How to achieve the right balance between standardization on the one hand and decentralization/diversity on the other?