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From Principle to Practice: Understanding Citizen-Centricity in Public Service Digitalisation Through Vulnerability

The Case of German Unemployment Welfare Services

Master's thesis

Technology Governance & Sustainability

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ABSTRACT

Citizen-centricity as a central principle in the digitalisation of public services holds great promise. However, the translation of this principle into practice is far from straightforward. The logic of service development, design, and delivery is to be inverted from following the administrative structure to taking the needs of citizens as the focal point. Yet, it remains unclear how the diversity of citizens' needs can be met, especially those in vulnerable situations who are dependent on welfare. This research sets out a constructive approach analysing how vulnerabilities are accounted for in the digitalisation of public services, in particular in the case of unemployment welfare benefits in Germany. For this purpose, a novel analytical lens is modelled, integrating three understandings of vulnerability: particularistic, universal and layered. This allows examining the underlying understanding of vulnerability across three implementation stages. Analysing the planning, execution, and mediation of the digitalisation of public services reveals how vulnerability is accounted for. In the larger problem context of understanding citizen-centricity in practice, it is synthesised how digitalisation can be human-centric in an inclusive or equitable way or by providing equality.

Keywords: citizen-centricity, vulnerability, digital welfare services, unemploym

LIST OF ABBREVIATIONS

ALG	Arbeitslosengeld (short-term unemployment benefit)
BA	Bundesagentur für Arbeit (Federal Agency for Employment)
BG	Bürgergeld (social security benefit in case of longer term unemployment)
BMAS	Bundesministerium für Arbeit und Soziales (Federal Ministry for Labour and Social Affairs)
BMI	Bundesministerium des Innern und für Heimat (Federal Ministry of the Interior and Community)
BMJ	Bundesministerium der Justiz (Federal Ministry of Justice)
NRW	Nordrhein-Westfalen (North Rhine Westphalia)
OZG	Onlinezugangsgesetz (Online Access Act)

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INTRODUCTION

Administrations around the world set out to modernise and digitalise their provision of public services. Citizen-centricity is a key principle therein. This expands digitalisation to become a transformative process. It involves a comprehensive reorientation of public service development, design, delivery. Instead of following administrative structures and competences, the needs and experiences of citizens are to be the focal point (Pfeil et al. 2018). However, the translation of this principle into practice is far from straightforward. It raises the questions whether and how consideration is given to the diverse needs of citizens, especially those in vulnerable situations who are dependent on welfare.

Some scholars have started to address this. Analysing the perception of vulnerable citizens, Höglund Rydén & de Andrade (2023) argue that their needs are being deflected with increasing digitalisation of welfare services. On the contrary, instead of alleviating their situation, digitalised welfare imposes an additional administrative burden on them. Examining the perspective of administrative staff, Schou & Svejgaard Pors (2018) also draw a negative conclusion. They find patterns of exclusion in digitalised welfare service provision, whereby vulnerable citizens are even further disadvantaged. An explanation may be found in how digital welfare services are designed for 'normal citizens' (Wihlborg et al., 2017) or 'average citizens' (Ranchordás & Scarcella, 2021), wrongly assuming that all citizens would be able to access and navigate them independently. While these primarily point to flaws in the system of digital welfare, Wihlborg et al. (2017) bring forth an approach to address this. They suggest a norm-critical perspective to emphasise the complexity of citizens. This thesis continues the pursuit for a constructive notion. It addresses a gap in this scholarly discourse by inverting the argument that digital welfare would only service for the norm or average and asking how it accounts for vulnerabilities.

For this purpose, a novel analytical lens is modelled, integrating three conceptualisations of vulnerability: particularistic, universal, and layered. This is employed to examine the implementation of the digitalisation of public services and to uncover the underlying understanding of vulnerability. In analysing this, a distinction is made between three stages of implementation. First, the envisaged implementation of digitalisation is considered, second, the actual execution of implementation and third, the mediation of towards digitalised public services.

The premise of this approach is that the understanding of and responsiveness to vulnerability underlying the digitalisation implementation of public services is indicative as to how the principle of citizen-centricity is realised.

This is applied to a single case exploration of the digitalisation of public services, particularly unemployment welfare benefits in Germany. The case of Germany serves as a compelling context. Despite having resources available, it is regularly evaluated as lagging behind in digitally transforming its administration (European Commission n.d.). Responding to this, legislative efforts have been made, signalling commitment to jumpstart and catch up. Through the Online Access Act (Onlinezugangsgesetz - OZG), administrative authorities were obliged to digitalise and make their public services available online by the end of 2022 (BMJ n.d.). As a result of this and due to the complex competences across federal structures, the implementation is well documented in guidance and pilot projects.

The focus on unemployment welfare benefits is relevant in terms of vulnerability. Unemployment can be the cause and trigger of vulnerability. As such, it may be interwoven with other dispositions or vulnerability. Whether short- and longer-term, unemployment can constitute a major disruption at any point in life. Ultimately, it can affect anyone. Against this background, this case lends itself well to an examination of vulnerability of digitalisation in a citizen-centric way.

Thereby, this research attempts to contribute valuable insights to the larger context of understanding the principle of citizen-centricity in the practice of digitalisation of public services. This can prove useful for researchers and decision-makers alike. It enables an understanding of human-centric digitalisation as to how it can be inclusive, equitable and provide equality. On this basis, informed governance and more coherent and effective implementation approaches can be developed.

Thus, this thesis aims to research how vulnerabilities are accounted for in the citizen-centric digitalisation of unemployment welfare benefits in Germany. This will be pursued with an analysis across the three stages of digitalisation implementation by answering the research questions:

1. **How are vulnenerabilities accounted for in the envisaged implementation of digitalisation according to the OZG?**

2. **How are vulnenerabilities accounted for in the actual implementation of digitalisation according to the OZG?**

3. **How are vulnenerabilities accounted for in the mediated implementation of digitalisation, bridging citizens and digital unemployment welfare services?**

This research is approached by first setting out the theoretical framework. The analytical value of vulnerability is explained and the academic discussion on conceptualising vulnerability is reviewed, introducing the particularistic, universal, and layered approaches. It is then discussed how these different understandings of vulnerabilities can be modelled into a three-fold analytical lens and operationalised to examine the translation of citizen-centricity into the practice of digitalising public services. This is followed by explaining the methodological choices, analysing the German efforts to digitise public services, in particular welfare unemployment services via document and interview data. This leads to the central presentation of analysis findings, unfolding across the three stages of digitalisation implementation. By synthesising these insights in the discussion, it is established how vulnerabilities are accounted for when digitalising of unemployment welfare services in a citizen-centric way. This is put forward as a contribution to the wider context of understanding the translation of the principle of citizen-centricity into practice.

1. THEORETICAL FRAMEWORK: Understanding Citizen-Centricity via Vulnerability

It requires a theoretical framework to address the question as to how vulnerabilities are taken into account in the realisation of citizen-centric digitalisation. Such a framework is modelled in the form of an analytical lens that integrates three understandings of vulnerability: particularistic, universal and layered.

In the following, it is explained how and why this is a relevant approach. The analytical value of vulnerability is introduced, in particular how it can further the understanding of citizen-centricity in practice. Applying vulnerability as an analytical lens requires conceptualising and operationalising it. Accordingly, a review of the scholarly discourse on defining vulnerability is carried out. This allows to determine three coexisting conceptual approaches: particularistic, universal, and layered vulnerability. These three approaches are distinct in their orientation and can be applied complementarily. Thus, all three approaches are applied in this thesis. To do so, it is established what they mean in the context of citizen-centricity. Thereafter, the methodology is explained. It is laid out how vulnerability as an analytical lens applied to three stages of digitalisation implementation: implementation as envisaged according to the OZG, implementation executed in the context of unemployment welfare benefits, and mediation between citizen and digital unemployment welfare services.

1.1. Analytical Value of Vulnerability

Vulnerability in relation to humans is multifaceted in its nature and implications. As an analytical concept, it is applied in various academic disciplines. Contexts in which it is examined range from fields such as legal and political philosophy (Fineman 2008; 2010; 2019) over gender studies (Gilson, 2010), to research ethics (Luna, 2009; 2019), environmental studies (Wisner & Luce, 1993), social work (Virokannas et al., 2018), and public health (Hutcheon & Lashewicz, 2014). This broad scope of application shows how elastic the term vulnerability is; possible to be fitted to a wide variety of purposes. It is thus not surprising that there is no consensus on a single

definition. Most common ground can be found in how scholars reflect on the difficulty to conceptualise vulnerability (Cole, 2016).

Despite ambiguity in its definition, vulnerability is not rejected as an analytical concept (Robinson, 2023). Vulnerability allows to differentiate complex circumstances in which individuals may find themselves and the experiences which they live or are susceptible to (ibid.; Luna, 2019). Acknowledging and examining this complexity does not only enable analytical rigour. It can further be the basis for normative claims. It matters how vulnerability can offer a lens for the diversity of needs and challenges by uncovering whether and how these are not provided for and addressed. Following the pursuit of social justice, needs for action can be determined and called for. Responsibilities can be assigned to not leave individuals unprotected in vulnerable situations. Ultimately, targeted strategies can be designed and implemented to resolve, mitigate, or at least avoid worsening vulnerable situations (Luna 2019, 93).

As such, vulnerability provides an insightful analytical lens in understanding the translation of the principle of citizen-centricity into practice. Both vulnerability and citizen-centricity appear to be elusive concepts, yet they can be logically linked in the context of the design and delivery of digital public services. On the one hand, a consideration of vulnerability allows to determine which individuals or groups, due to which conditions or experiences, may have a need for attention, support or protection. On the other hand, citizen-centricity is a normative principle stipulating digital transformation of public services to be based on the needs of citizens. The way citizens' needs - that are to be at the centre of digitalisation - are considered depends on how vulnerability is understood. Linked in this way, citizen-centricity can be understood in terms of vulnerability. Thus, citizen-centricity can be understood by examining how digitalisation of public services caters for some or all vulnerable people and situations. Exploring what understanding of vulnerability is accounted for, enables to systematically move towards a better understanding of how citizen-centricity is manifested in practice. Therefore, the modelling of vulnerability into an applicable lens adds analytical value to this research endeavour.

1.2. Conceptualisation: Three Approaches to Vulnerability

The application of vulnerability as an analytical lens needs to be preceded by a conceptualisation of vulnerability. Much literature refers to two main approaches of conceptualising, almost juxtaposed like two different schools of thought (Herring 2016, 7; Malgieri & González Fuster

2021, 16). Beyond that, there are efforts to reconcile them. Given the lack of a consistent understanding in the literature, conceptualisations resort to having the purpose of application determine the meaning of vulnerability. It is worthwhile to first generally introduce the particularistic, universal, and mediating, layered approach. Thereafter they can be operationalised to translate their purpose orientation for citizen-centricity.

1.2.1. Particularistic Vulnerability

The 'particularistic approach' to vulnerability as termed by Malgieri and González Fuster groups accounts referring to vulnerable individuals or groups based on fixed personal features or circumstances (2021, 16). Many scholars define and employ vulnerability as linked to an individual's identity, for example, in terms of their gender (Samanta, 2023), their ethnicity (Tsatsou, 2022), their age (Culén & van der Velden, 2013). This means, for instance, that children or eldery people are vulnerable people based on their age (ibid.). Flexibly expanding on this, the particularistic approach may distinguish whether vulnerability is constituted by determined characteristics of individual or group identities such as ethnic minorities (Macioce, 2023; Tsatsou, 2022) or fixed circumstances such as disabilities (Lid, 2015; Tsatsou, 2022). As such, they are singled out to recognise and understand their different experiences. The perspective emphasises that people may not be inherently and uniformly vulnerable, but that vulnerability is determined in being afflicted by inequalities and injustices in social structures (Lid, 2015). This differentiating notion of vulnerability reflects categorisations of subpopulations for the purpose of anti-discrimination and inclusion (Malgieri & González Fuster 2021, 16). The main advantage of this approach is its practicability in policy and research (ibid.). Clear demarcation can be made as to which individuals and groups are vulnerable or not.

However, critical scholars argue that the particularistic approach is overly simplistic. It is rigid in how it demarcates which identity markers or circumstances make individuals and groups vulnerable. There are efforts to reach more granularity, for example by differentiating between affectedness and susceptibility (Gilson, 2010; Kottow, 2003). Nonetheless, the fixed nature of particularistic vulnerability may lead to neglecting individuals. And for those identified as vulnerable, the risk arises that support, intervention or regulation may be designed inadequately when they do not fit neatly into predetermined categories.

Attaching the label of vulnerability comes with negative connotations that may stigmatise individuals (DeBruin 2001; Malgieri & González Fuster 2021, 9). This conflicts with normative

claims vulnerability studies put forward. Scholars seek to overcome vulnerability denoted as a shortcoming. Nonetheless, vulnerability cannot simply be reframed and 'transvalued' into a positive (Cole 2016, 265). Thus, efforts remain limited to argumentative devices attempting to alleviate negativity and susceptibility to stigmatisation. This is carried out, for example, by argumentatively dissociating vulnerability from victimhood or by differentiating between being a vulnerable person and being in a vulnerable situation (ibid., 269-271).

1.2.2. Universal Vulnerability

The universal approach to vulnerability responds to the limits of particularistic vulnerability. In addressing the limitations and integrating the attempts to overcome them, the alternative approach of recognising vulnerability as universal emerges. Patron of this approach is Martha Fineman with her vulnerability theory.

Fineman positions her conceptualisation against the account of zooming in on individuals and categorising differences. Instead, she emphasises the shared condition of being human. For everyone, being human means having a body whose conditions and needs are constantly changing and can change in ways that constitute dependencies (Fineman 2019, 21-25). There are unavoidable dependencies for children and elderly as well as through illness or disability. This in turn generates secondary dependencies for those who care and devote resources to others. Dependency can be offset by resilience, which she regards as nurtured rather than natural. Resilience is not achieved through individual accomplishment but can be produced via social relationships and institutions. She names family, education, welfare and financial systems as examples for 'resilience-conferring institutions' (ibid., 27). These have a simultaneous and sequential effects in enabling individuals to navigate different life circumstances they are exposed to. Missing out on gaining resilience in one social arrangement can affect the ability to cope in another, just as resilience gained through one arrangement can compensate for or mitigate adverse circumstances in other areas. Fineman ascribes social institutions and relationships central efficacy for well-being and justice.

Returning to the observation that the conceptualisation of vulnerability is largely determined by how it is meant to be used, also Fineman's theory is modelled for a certain purpose. Her vulnerability theory revolves around responsibility and calling the state and society into it (Fineman, 2010). Rather than assuming individuals to be autonomous, they shall be recognised as vulnerable subjects aspiring to autonomy (Fineman 2008, 10-12). As a counterweight to universal

vulnerability, it requires a responsive and responsible state. This shall oversee and provide for social institutions and relationships that mediate dependencies and confer resilience (Fineman 2019, 21-23).

It is worth mentioning that Fineman does not fully reject arguments of particularity despite focussing on universality. She denotes vulnerability as an individual experience due to different positionings in social relationships and institutions (Fineman 2010, 31). The difference in experience, in turn, depends on the resources and capacities that individuals can draw from social relationships and institutions to build resilience over vulnerability (Fineman 2008, 10; 13-15). Thus, social structures and individual experiences can be understood as a closely intertwined, self-propelling system. Fineman's conceptualisation serves the purpose of putting forth systemic, normative claims for social justice at a higher level of abstraction than the particularistic approach (Lid, 2015).

1.2.3. Layered Vulnerability

The layered approach to vulnerability bridges the dichotomy between particularistic and universal vulnerability. Rather than labelling some or all as vulnerable, Luna argues for layers of vulnerability affecting individuals. (Luna, 2009; 2019).

She emphasises the conceptual limits of other approaches by echoing the critique of Levine and colleagues (2004, 46-47). If the particularistic approach seeks not to fail recognising any vulnerability, too many categories would be created. Eventually this would render everyone vulnerable while some may need more consideration than others. The universal approach would 'naturalise' vulnerability as an inevitable fact, leaving everyone unprotectable (Luna 2019, 87-88).

Against that, she develops her theory of layered vulnerability in the context of research bioethics and the question as to how to involve human subjects. She originally discusses the case of women. In early bioethical research evaluation, women were often categorically considered vulnerable and thus excluded from research to protect them from harm. As others before (Levine et al. 2004, 47), she criticises that subpopulations are not consistently vulnerable as such but that some individuals within may face circumstances rendering them vulnerable under certain conditions (Luna 2009, 122). Thus, Luna rejects conceptualisations of vulnerability as fixed and generalising. She develops a more dynamic account, understanding vulnerability as contextual and relational. Thereby, the layered approach allows recognising more granularity and flexibility. It centrally considers the changing nature of circumstances constituting vulnerability. This means that if

individual, social, economic, or political conditions posing vulnerability change, special consideration is no longer required.

Again, also Luna's conceptualisation is developed with a purpose in mind. She focuses on the functioning of vulnerability, rather than attempting to pin down the content. She summarises that '[i]ts functioning is a relational and dynamic one, closely related to the situation under analysis. It is not a category or a label we can simply apply. The layered approach 'unpacks' the concept of vulnerability and shows how the concept functions' (Luna 2019, 89).

Other scholars prompt her to operationalise her theory and identifying layers (Rogers et al., 2012; Lange et al., 2013). As she rejects other scholars' taxonomies as rigid and falling back onto labels (Luna, 2015), she develops a two-step practical guide (Luna 2019, 90-93). As a first step layers are identified while they are evaluated in a second step to develop strategies addressing them. Thereby, Luna's conceptualisation manages to integrate other definitions of vulnerability. She bases the identification of layers not on fixed conditions but on dispositions to vulnerability, meaning the possibility of being harmed, mistreated, abused, or exploited. Such dispositions can be either actualised or dormant and triggered by what she calls 'stimulus conditions' (ibid., 91). Identifying layers requires making out dispositions, their stimulus conditions as well as cascade layers. Cascade layers are dispositions that incite a chain of events setting off more dispositions and layers of vulnerability. Here, Luna integrates elaborations of Fineman on how vulnerability can have sequential effects. The second step is to evaluate layers and design responses to them. Layers are to be prioritised considering the intensity of the actual or probable harming effect in combination with the probability of it being realised. It is sensible to rank cascade layers highly as they often contain the most harmful potential when triggering several layers. While not all layers are possible to identify and anticipate, the reflection process serves as a guide to assign different kinds of obligations for protection or support. Luna puts forward a normative account to tailor response strategies. At minimum, it shall be avoided to exacerbate or actualise layers of vulnerability, better even when layers can be minimised or eradicated.

The discussion on different understanding of vulnerability can be summarised by reference to Malgieri and González Fuster. They reflect on the three approaches and formulate in simple terms that 'vulnerability has to be seen either as static and group-based (some people are vulnerable, because of the type of person they are), or as an inherent characteristic of humankind (everyone is vulnerable). A third way is layered vulnerability: vulnerability is a contextual adjective in some social situations (some people have some vulnerabilities in some contexts)' (2021, 23).

1.3. Operationalisation: Vulnerability as an Analytical Lens for Citizen-Centricity

It requires an operationalisation of how vulnerability is used as an analytical lens to make the principle of citizen-centricity tangible. The different conceptualisations of vulnerability each have weaknesses and strengths in their varying focus. Each could be used in its own right to understand citizen-centricity more concretely. However, the three definitions are not necessarily mutually exclusive in their theoretical configuration; they can be integrated. Considering empirical practice, the definitions turn even more combinable. When digitalising public services, different measures to realise citizen-centricity can be employed simultaneously. Such different measures can cater to different understanding of vulnerability. Thus, the combination of the three understandings provides a particularly relevant analytical lens, allowing for a holistic approach.

The digitalisation of public services is examined to determine which understanding of vulnerability it is based on. Whether a particularistic, universal, layered or a combined approach is reflected, uncovers how citizen-centricity is understood. For each of the three conceptualisations of vulnerability, it is necessary to establish what citizen-centricity means.

The particularistic conceptualisation of vulnerability posits that some individuals or groups require special attention, support and / or protection due to their identity or fixed circumstances. A citizen-centric approach to digitalisation along these lines would ensure that the development, design and delivery of digital public services is inclusive. This means not discriminating based on determined personal features and circumstances. Executing this could be done through special arrangements, for example, for linguistic minorities or older citizens. The reasoning here is that if digitalisation accounts for the most vulnerable, it can account for all and is thereby citizen-centric. However, it can be challenging to capture all possible grounds of discrimination. Accordingly, there is a risk that not all particularistic vulnerabilities are detected and addressed.

Translating universal vulnerability into citizen-centricity means that all citizens are central. Therefore, all are equally in need of attention, support and / or protection. Digitalisation based on that would enable easy access to public services in general. This could be realised through standardisation as well as intuitive design and delivery. It is important to note that intuitiveness would be understood as universal and objective. A subjective intuitiveness would recognise differences. However, diversity is disregarded under the universal account of vulnerability. All citizens are treated equally in all situations. The pursuit of this approach is at the expense of equity.

Equal situations are treated equally, but also unequal situations are treated equally. There are no means for equilibration as possible special needs of attention and / or protection are neither recognised nor catered for.

The layered approach to vulnerability corresponds to a realisation of citizen-centricity that accounts for individual circumstances. In contrast to the particularistic and universal account, it is not the determination of who is vulnerable that is relevant, but rather which situation leads to vulnerability. Citizens are in need of special attention, support or protection depending on the context, conditions and experiences. It is relevant here that individual circumstances can change and are context-dependent. Accordingly, special consideration is dynamic. The need for it can arise and no longer apply. In particular, digitalisation by means of customisable servicing would be relevant here and correspond to layered vulnerability. In contrast to the universal approach adopting an equal measure, the layered understanding pursues equity. Equal situations are treated equally, while unequal situations are treated unequally.

In addition to this individual consideration, it is conceivable that two or all three understandings of vulnerability are present. For example, a digitalised service can be implemented in a universally accessible way and at the same time be customisable in parts, catering for layered vulnerability. Accordingly, the threefold understanding of vulnerability is used to examine how citizen-centricity is realised when digitalising public services. In the following, the methodological approach is explained on how this is done, differentiating between three stages of digitalisation implementation to answer the three research questions.

2. METHODOLOGY

The methodological approach pursued in this thesis needs to be explained and justified as to how it is suitable for the research aim. Accordingly, the research design is laid out below. It is established how to examine vulnerabilities in digitalising public services. A qualitative enquiry is carried out that empirically considers the digitalisation of unemployment welfare services in Germany.

2.1. The Case of German Public Service Digitalisation

This thesis adopts a single-case study research design, whereby Germany is selected as the case for analysis. The choice of a single case study enables in-depth examination of the specific context. This is necessary as the implementation process of digitalising public services in a citizen-centric way is considered holistically. Socio-technical systems such as digitalised public services are highly context-dependent, and their realisation is a multi-faceted process (van de Poel, 2020; Masso et al., 2020). Focussing on one public administration context allows building a comprehensive understanding.

The limitation to one case reduces the comparability with other national administration contexts. Nevertheless, the results will indicate themes that can be tested in other settings with similar or differing conditions and may enable generalisability.

Germany is chosen as a case given how its digital development and service provision is regularly ranked below EU average (European Commission n.d.). Such low ranking is noteworthy given the resources available to counter that. In order to advance, Germany adopted the OZG (BMJ n.d.). It requires federal, state, and municipal authorities to make their services available. In force since 2017, it sets the ambition to achieve that within five years, thus until 2022. The implementation of the OZG has fallen well short of its ambitions. The 2022 review found that merely 33 out 575 services to be digitalised were made available online nationwide (Nationaler Normenkontrollrat, 2022). Challenges that are named as obstacles to the ambitious implementation include the complex federal structure, different levels of digitalisation and a heterogeneous IT landscape (ibid).

In this unsettled digitalisation landscape, there is a notable exception: the area of unemployment welfare services. Therein, committed digitalisation projects have been implemented and are under development. The Bundesagentur für Arbeit (Federal Agency for Employment - BA), for example, has emerged as a pioneer in digitalising its service offer. As one of the largest agencies, it has its own in-house IT development that managed to digitalise in compliance with the OZG (BA, 2020). While this includes welfare services for short-term unemployment, services for longer-term unemployment have been digitalised in a dedicated accelerated procedure during the Covid-19 pandemic (BMI 2020). Additionally, public pilot initiatives such as a platform and local Jobcafé concept have been launched, promising to enable and ease access to digital unemployment welfare services.

These digitalisation projects are relevant to examine due to their pioneering status. Their approach to the implementation of digitalisation is likely to be followed in other service areas. This may render their examination indicative beyond this case. Furthermore, these projects arise from a complex construct of regulatory, enforcement and digitalisation competences, distributed across the federal, state and municipal authorities as well as employment agencies. Both, the pioneering status as well as the competence structure, lead to a well-documented implementation of human-centric digitalisation, making it suitable for research.

2.2. Power Asymmetry in Accessing Unemployment Welfare Services

Among the public services being digitalised, this research selects to examine unemployment welfare services. The vertical relationship between the state and individuals creates a particularly pronounced power asymmetry in this context of welfare (Ranchordás & Scarcella 2021, 13). While the design of welfare systems varies across countries, the state always holds the authority to determine eligibility criteria and other conditions of assistance. Citizens are dependent or may even be existentially reliant thereon.

This thesis focuses on welfare services in Germany concerning short- and longer-term unemployment. In the German welfare system, these services follow different schemes. Short-term unemployment is mitigated via partial coverage of the previous salary by a social insurance (BA n.d. b). Longer-term unemployed are provided with needs-based subsistence through tax-financed social security benefits (ibid.). While they differ in time horizon and support scheme, both welfare needs arise from a similar life situation; lacking employment and thus economic autonomy. Unemployment can affect virtually anyone. Short-term unemployment can extend to longer-term unemployment. It can mark a caesura in one's life or manifest socio-economic disadvantage. Not being able to provide for oneself as expected or even self-sufficiently due to unemployment can be overwhelming. It can spark a myriad of further hardship due to difficulty or inability to cover expenses for housing, food, healthcare, and other necessities for oneself and possible dependents. Given this precariousness and potential cascade, access to unemployment benefits is critical. If access to such support is a complex bureaucratic process or proves to be burdensome for individuals, the situation of hardship can become further compounded. Digitalising public services is transforming how they can be accessed and used. This introduces a further dimension of power asymmetry (Ranchordás & Scarcella 2021, 6). The state determines the affordances of the digital service system. These influence how citizens can navigate public service offers, request and

receive counselling, claim benefits or object to denial of benefits. The ambition of digitalisation is to develop, design, and deliver public services in a citizen-centric way. This aims to alleviate the administrative burden for citizens in relation to the state. In this pursuit, however, a digital burden may be imposed on some citizens. Or, if the administrative burden is insufficiently lightened, an additional intertwined burden can be incurred due to the digital dimension (Höglund Rydén & de Andrade, 2023). Thus, it is relevant to understand how vulnerabilities are accounted for when digitalising public services in the context of welfare.

2.3. Document and Interview Data Across Three Stages of Digitalisation Implementation

In order to capture a holistic view of how vulnerabilities are accounted for in the digitalisation of unemployment welfare services, three stages of digitalisation implementation are considered. The analysis of each stage is based on different data sources, for which the selection and analysis is to be explained and justified.

The examination of the implementation stages is ordered on a scale from digitalisation as per the OZG in general to specifically digitalisation of unemployment welfare services. The latter is divided into two stages: firstly, the actual implementation of the OZG exemplified by the Sozialplattform, and secondly, the public initiatives that mediate between citizens and digitalised unemployment welfare services to enable their access and use.

The most general level, the implementation of the OZG, is considered via document analysis. The examination of how vulnerabilities are understood is based on publicly accessible accounts. The starting point for source selection is the dedicated website 'www.digitale-verwaltung.de' (translation: www.digital-administration.de) of the responsible Bundesministerium des Innern (Federal Ministry of the Interior - BMI), which compiles basic information on the OZG and further refers to more specific material. The data accessible via this website is rich as the website is not only a means of transparency to communicate to citizens. It also serves as guidance for the multitude of implementation actors. Due to Germany's federal structure, the regulation, enforcement, and digitalisation of public services are spread across governance levels and competences.

The document selection follows the sitemap table of contents of digitale-verwaltung.de to navigate all content. With a focus on OZG-relevant topics, a preliminary analysis is carried out to establish an understanding of the context, follow all links and select the sources relevant to citizen-centricity for subsequent in-depth analysis. Document analysis is suitable to follow how the public service digitalisation according to the OZG is planned to be implemented. This approach allows trace the underlying underlying in a structured way (Bowen, 2019). As a possible limitation it is to be noted that the accounts were not generated with the purpose of research in mind and are specific to their context (ibid.). In order to control for this limitation, a triangulating data collection via interviews with the authors of the documents could be conceivable, ascertaining the intention of the documents more reliably. However, identifying these and ensuring availability is beyond the limited scope of this thesis.

The second stage on digitalisation implementation, specifically in the context of unemployment welfare services, is examined on the basis of interview data. Particularly in this stage, does the complexity come into play of federal competence distribution in regulating, enforcing, and digitalising public services. Accordingly, one digitalisation project is selected and analysed by way of example: the Sozialplattform. The analysis thereof is based on interview data from a purposefully selected perspective (Suri, 2011). A representative of the project management of the Sozialplattform is chosen as they can give relevant view and first-hand experience of project's development planning and process. Interviewing is a suitable data collection method here because it requires insight beyond the publicly available accounts for an in-depth study of the concept and development of the Sozialplattform. The consideration of one digitalisation project and a single perspective is sufficient to gain an exemplary understanding of the implementation according to OZG requirements in the context of unemployment welfare services. Nevertheless, limitations are to be acknowledged in view of this focussed data collection. There is limited access to more perspectives associated with the Sozialplattform or to other digitalisation projects of unemployment welfare services. However, these would provide more representative evidence of other experiences of the digitalisation implementation via the Sozialplattform or other projects. As the analysis in this implementation stage is based on one interview, it is necessary to analyse the data in-depth but at the same time with a critical consideration for reliability. It is important to be aware that the interview data can give a subjective and or partial picture and is thus limited in their generalisability.

The final stage specific to the digitalisation of unemployment welfare services involves a consideration of public pilot initiatives mediating between citizens and digital unemployment welfare services, so-called Jobcafés. As intermediaries, they set out to enable their access and encourage their use. Here, the underlying understanding of vulnerability when digitalising in a citizen-centric way is analysed based on interview data with purposefully selected perspectives (Suri 2011). On the one hand, the perspective of local employment authorities, so-called Jobcenters, is regarded. Analysing this perspective can uncover how the need for such initiatives was determined and how it was procured. On the other hand, the perspective of project managers of the Jobcafés is taken into account. They give insight into concept development, project implementation and experiences how the Jobcafés support citizens in accessing the digitalised service offered in the context of unemployment.

Interview data is relevant and necessary to analyse this stage as publicly available information is limited to only the projects' websites and few news coverages. However, the interview data is also of limited volume. The two considered perspectives combined are based on data from three interviews. The Jobcafés are pilot initiatives currently comprising two facilities that have been running since May 2022 (CUP Digital Munich n.d.) and December 2023 respectively (Café Digital Hamburg n.d.). Accordingly, the availability of data is restricted. This could be remedied if the client perspective were included in addition to the procurement and project management perspective. However, the limited scope of this work precludes this. Nonetheless, the same limitations as with regard to the interview data for the second stage are to be recognised. It requires awareness with regard to reliability and the accounts are only generalisable to a limited extent.

Project	Organisation	Role	Code
Sozialplattform	d-NRW	Project management	SP
CUP Digital Munich	Deutsche Angestellten-Akademie GmbH Munich	Project management	CDM1
	Jobcenter Munich	Procurement	CDM2
Café Digital Hamburg	DAA Deutsche Angestellten-Akademie GmbH Hamburg	Project management	CDH

Table 1: Overview of conducted interviews. Explanation of the roles of the interviewee in relation to the projects analysed. Explanation of the organisations that are responsible for the projects analysed and employ interviewees. The codes are abbreviations of the project names and used to reference statements or information provided in the interview. Compiled by author.

The interviews[1] as sourced for the second and third stage are conducted in a semi-structured format. This approach allows for flexibility in exploring participants' insights while maintaining a basic structure through a topic guide. The topic guide is developed by anticipating the interview process and identifying logically ordered themes and leading questions. This balance between guidance and flexibility ensures coherence across different interviewees while allowing for sufficient opportunity to explore distinct expertise or perspectives. The data analysis follows a three-dimensional coding process, as described by Boeije, encompassing open, axial, and selective coding (2010). The initial codes are derived from the topic guide and interview transcripts, allowing for the identification of emerging themes and patterns. These codes are then organised into broader themes, facilitating deeper exploration of the vulnerability aspects in the implementation of citizen-centricity.

With regard to all three stages of digitalisation implementation, some methodological limitations persist. As the case study is set in the German context, the considered document and interview data are in German language. The translation thereof for the analysis as well as the selection, coding, and interpretation of the data underlie a certain subjectivity which is to be acknowledged as a limitation for the reliability.

3. ANALYSIS

The analysis is presented in a structure following the three predefined implementation stages of digitalisation.

As the first stage, the implementation of the digitalisation of public services as envisaged by the OZG is analysed. This is done by first providing context to the OZG and explaining responsibilities. Then, document data is analysed as to how the development of digital services is envisaged as well as how design and delivery are planned. Interim findings in relation to OZG implementation are compiled in anticipation of the synthesis of all findings in the discussion after all three stages have been addressed.

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[1] Topic guides and transcripts of conducted interviews can be made available upon request.

The second stage concerns the implementation of digitalising unemployment welfare services. At first, the German unemployment system is contextualised. Thereupon, the actual implementation of digitalisation of unemployment welfare services exemplified by the Sozialplattform is analysed based on interview data. This analysis is divided into considering the concept of the Sozialform, its actual and future development. As for the first stage, interim findings are consolidated.

The third stage of implementation is modelled on public pilot initiatives mediating between citizens and digitalised unemployment welfare services. As such, this stage does not directly correspond to implementation as per OZG. However, it logically follows from the two previous stages. Jobcafés are analysed on the basis of interview data. In the structure of the analysis findings, first, the concept and realisation of Jobcafés are considered, then their interaction with clients as well as the origin and circulation of the concept idea. The respective findings are subsequently collated. Thereafter, a discussion of the analysis findings on the understanding of vulnerability across the three implementation stages is conducted and put in context with citizen-centricity.

3.1. OZG Implementation

The first stage of implementation refers to the digitalisation of public services according to the OZG. The aim is to examine which understanding of vulnerability is underlying. In order to do this, it is necessary to first contextualise what is to be digitalised and by whom. Thereafter, it is established how the OZG implementation is intended and what understanding of vulnerability is followed therein.

3.1.1. Context and Responsibilities for the OZG

Paving OZG implementation, an inventory of public services in Germany to be digitalised was drawn up. Until then, services had been catalogued following a typology of competence distribution between federal, state or municipal level, distinguishing between regulatory and enforcement responsibilities (Stocksmeier & Honnius 2018, 8). In the course of digitalisation, a transformation of service design and delivery systems is to be undertaken. Accordingly, a new, reverse systematisation was developed, taking as the focal point the perspective of users, i.e. citizens and companies. Thematic areas and 55 life and business situation bundles were modelled, altogether making for 575 so-called OZG services to be made available online by 2022 (ibid. management summary).

The responsibilities to digitalise the 575 OZG-services again follow the competences distributed across different federal governance levels. Two digitalisation programmes 'Bund' and 'Föderal' were set up (BMI n.d. e). The former includes the services for which the federal government holds the regulatory and enforcement competence. The latter comprises services regulated at federal level and enforced at state or municipal level as well as services regulated and enforced at state or municipal level (BMI n.d. f). In order to achieve uniform implementation despite this distribution, framework conditions were set: the federal government would coordinate OZG implementation via 'Föderal'-programme. In return, the federal states receive resources to implement digitalisation at state and municipal level (Stocksmeier & Honnius, 2018, 2).

Further responsibilities are assigned for collaboration. One or more federal states together with a federal ministry are to take on digitalisation of a thematic area. All OZG-services within an assigned thematic are to be digitalised, following the principle 'one for all'. This means they are made available to others for subsequent use via a linking network. The BMI responsible for coordinating the 'Föderal'-programme offers support to all implementing actors. It maintains the website 'digitale-verwaltung.de', specifies principles via a service standard (BMI n.d. a), and gives detailed instructions via the OZG-guidelines (BMI n.d. c). An analysis of these comprehensive resources enables to trace how citizen-centricity is realised. Based thereon, it can be determined how the envisaged OZG implementation accounts for vulnerabilities.

3.1.2. Development of Digital Public Services

The idea to centrally coordinate OZG implementation reflects a universal approach. Generally, standardisation is relevant here considering the distribution of responsibilities. The aim is to reach uniformity across the digitalisation efforts of different implementing actors. All citizens envisaged to have digital public services available to them are conceived in the same way.

Uniform implementation is pursued for example via the service standard (BMI n.d. a). Therein, a set of 19 actionable quality principles is defined and made even more tangible via an accompanying handbook. Minimum requirements and recommendations are formulated to help decision-makers introduce measures implementing the quality principles. Each of the individual principles can be followed up with support materials, ranging from legal explanations, over topical guidelines, to self-tests.

An equally detailed manual is provided via the OZG-guidelines (BMI n.d. c). Therein, a standardised four-phase project model structuring the digitalisation of thematic areas is given.

Specific recommendations for action are issued, instructions for various roles as well as supporting material such as guidelines, criteria checklists and templates are provided. Reference is made to the service standard and the importance of user-centricity. Such pursuit of uniform OZG implementation reflects an understanding of universal vulnerability. At least this is how it is envisaged as a blueprint.

While user-centricity is emphasised as the 'ultimate principle', there is no prescribed standard definition of a user beyond that they are citizens and companies (BMI n.d. a). This indicates an underlying understanding of vulnerability as universal. User-centricity permeates all principles of the service standard (ibid.). One third of the accompanying handbook addresses user-oriented design to implement user-centricity, aiming to develop intuitive services using a systematic approach (ibid.). This specifies the first principle, providing a definition of user-centricity. It involves consistently designing services from the user's perspective and aligning them with their actual, not intuitively anticipated needs.

User research should be carried as the first step of digitalising a service and user testing as the last one (BMI n.d. c). At best, this should involve users and / or administrative staff with direct user contact experience. For that, simple explanations and support materials via templates are provided. The recommendation to conduct user research counters the argument that a universal vulnerability would be present inferred from the lack of user definition. User research allows for leeway to construct user identities or directly engage actual users. Depending on how this is employed, it can be based on a particularistic, layered or even universal understanding of vulnerability.

The OZG-guidelines, setting out a standardised digitalisation process in four phases, further specifies user research (BMI n.d. c). The second phase is concerned with analysing the services to be digitalised in desk research. An in-depth analysis and validation with real users can only be carried out in so-called digitalisation labs. However, this is only available for prioritised services frequently and assumed as important for users. The predominantly applied desk research approach should include identifying the target group via the legal requirements for the service. Thereupon, socio-demographic or socio-economic characteristics should be determined and ideal-typical personas formed. Then, the life situations of these fictional personas are theoretically should be modelled and assigned to services in the thematic area. By determining target groups and persona models on socio-demographic data, particularistic vulnerability is implied. By including socio-economic circumstances, changeable living conditions are considered. Thus, a layered approach is present. However, it is to be noted that target groups are characterised according to past data

without consideration of possible future changes. This contradicts the layered understanding of vulnerability, according to which a permanent vulnerability is rejected as determining conditions may change, rendering a special account obsolete (Luna 2019, 91). However, a trend analysis appears unfeasible in practice.

Modelling and employing user journeys should be part user research (BMI n.d. a; c). The process from need to response should be conceived from a user perspective. It should be divided into the steps that a user experiences - from a certain life or business situation, over learning about a corresponding service, obtaining eligibility and application information, applying, expecting a decision until receiving a service. Generally, these steps would be modelled in desk research, while in case of digitalisation labs they would be developed with users. For each step, pain points in the current process should be determined as well as needs to be addressed in the future digitalised process. This indicates a layered understanding of vulnerability. Individual circumstances and conditions are taken into account. However, both the service standard and the OZG-guidelines refer to the concept of the user journey in singular form. Accordingly, it can be assumed that only a single user journey is conceived. However, if several user journeys were modelled based on different personas and life situations, there could be potential to approximate a universal approach. Yet it is methodologically impossible to capture all user journeys and factor them into the development of a digital service. If this were to be done, a universal understanding of vulnerability would be present.

3.1.3. Design and Delivery of Digital Public Services

The planned implementation for the design and delivery of digital public services, gives further insight into how citizen-centricity is translated into practice, thereby accounting for vulnerabilities.

The importance of clear structure, communication and guidance is emphasised as the second principle of the service standard (BMI n.d. a). The second principle of the service standard stipulates this is to be done in line with user expectations when accessing and navigating a service. It is recommended to observe the general usability guidelines and test the implementation for intuitiveness by users and / or usability experts. Additional communication and digital assistance should be offered, for example via FAQ, eligibility tests, benefit calculators, contact forms, chatbots. Seeking a generally intuitive design reflects an underlying understanding of vulnerability as universal. However, the layered approach could be realised regarding digital assistance, depending on their specific features. Tools such as eligibility tests or chatbots, navigating through

the service or referring to others may be responsive to different and changing personal situations. Thus, a combination of universal and layered approach can be present.

The third principle of the services standard appears to preclude how the second principle advises for intuitive design, accounting for universal vulnerability (ibid.). Therein, it is emphasised to consider the needs of different ages, backgrounds and limitations. Similarly, the OZG-guidelines formulate that, despite the standardised form, all potential users should be taken into account (BMI n.d. c). Specific means are recommended such as reader-friendly texts and gender-neutral language. Explanations in simple and sign language should be provided on landing pages and compliance with accessibility regulations should be ensured. Impact maximisation should be pursued, keeping in mind the aim of service digitalisation is to achieve acceptance, promote use and simplify processes. While the guidance for service design generally reflects universal vulnerability, it is topped with provisions for special consideration of some groups. Thus, particularistic vulnerability is displayed.

The use of digital public services should be promoted (BMI n.d. a). This should be pursued through 'suitable measures and positive user experiences' (ibid.). The aims and advantages of the digital offer should be communicated from the user's perspective and easy to find in common search engines. Generally, such promotion measures can be argued to exhibit universal vulnerability. However, it remains open what measures are suitable. Such flexibility may materialise in implementations corresponding to particularistic or layered vulnerability. These could be added to the universal understanding in a similar way as it was combinedly present in the intuitive design with special consideration for diversity.

Measures to monitor the impact of digitalised service design and provision should be set up (ibid.). This includes data collection on user satisfaction and behaviour via statistical analyses and questionnaires. As a rule, users should be able to provide feedback on problems and quality of any online service, for example via a complaint or evaluation form. Impact reports based on this data and feedback should be published. This intends to enable transparency towards citizens and provide an incentive for other implementing actors to improve. Findings from impact monitoring should be considered for continuous digital development and optimisations of user-centricity. The approach to require data collection on user satisfaction corresponds to universal vulnerability. Based on that, general usability should be enhanced. However, any further development of the service offer will depend on the feedback gathered. This means that aspects of particularistic,

layered and universal vulnerability may be incorporated. Such conditionality suggests that a blend of the three approaches is possible.

3.1.4. Interim Findings on OZG Implementation

The first stage, examining how public services are planned to be digitalised, is to be summarised. The resources to support OZG-implementing actors give a varied picture of how vulnerabilities are accounted for. Pursuing coherence with guidance ressources is putting citizen-centricity to practise in a way that reflects an underlying understanding of universal vulnerability. However, there is considerable room for discretion in the details of these resources. This may be necessary given the range of different OZG services and digitalisation projects it should be applied to. The guidance resources allow for flexibility in the analysis and conception for service development as well as in how service design and delivery can be carried out. Approaches to user research, target grouping, modelling of personas and user journeys can vary and reflect an orientation towards all vulnerabilities.

Design and delivery of digitalised service is generally conceptualised in a universal way. This is reflected in the provisions for assistance, promotion, and impact monitoring. However, for the realisation thereof, also measures are recommended that can meet a layered understanding of vulnerability, for example through digital assistance or measures for the uptake of digital services. At the same time, specific measures are stipulated to cater for the diversity of users and reflecting their particular vulnerability. Altogether, it can be seen that the envisaged process of digitalisation and service design is intended to be universal, yet it may vary in its actual implementation.

3.2. Unemployment Welfare Services Implementation via Sozialplattform

The second stage of digitalisation implementation concerns unemployment welfare services. The aim is to examine how vulnerability is understood in the implementation of the OZG in unemployment welfare services. Focussing on a thematic service context and a specific digitalisation project can reveal how the previously examined plan for OZG implementation is applied in practice. The understandings of vulnerability as found in the first stage of planning OZG implementation, can be passed on or may differ in this stage of executing it.

In the following, a contextualisation of the German unemployment welfare systems is given, in particular how regulatory and enforcement competences as well as responsibilities for

digitalisation are distributed. This is followed by an analysis of the vulnerability understanding in one digitalisation project, the Sozialplattform, based on interview data from the perspective of programme management.

3.2.1. Context of the German Unemployment Welfare System

Among the unemployment welfare services, this analysis concentrates on digitalisation of the process to claim Arbeitslosengeld (ALG), the short-term unemployment benefit, and Bürgergeld, the longer-term unemployment benefit. These benefits address the financial hardship arising from the same life situation. However, it is differentiated in the German welfare system into different types of benefit schemes and differently enforced due to distributed federal competences. When becoming unemployed, individuals are entitled to ALG. This is a federal insurance allowance enforced by the federal employment agency BA to mitigate the loss of income by partially compensating the previous salary for one year. If an individual is unemployed for a period longer than that year, they move from the social insurance scheme into a social security scheme. The so-called Bürgergeld is the benefit for longer-term unemployment. It is regulated at federal level and enforced by local counterparts of the BA at county and municipal level. The so-called Jobcenters administer Bürgergeld, however also the federally enforced ALG claim application can be made there in person. Beyond that, Jobcenters provide services such as employment and education counselling.

The competence distribution across the governance levels is reflected in the responsibilities for OZG implementation and digitalisation. The digitalisation programme 'Bund' covers the digitalisation of the ALG claim. The digitalisation programme 'Föderal' includes the Bürgergeld claim. The BMAS was responsible for the digitalisation of the ALG claim, while it was carried via the BA and its in-house IT developer, the IT-Systemhaus (BA, 2020). Deviating from regular procedures under the 'Föderal' programme, the Bürgergeld claim was digitised through an accelerated procedure by the state of Hesse (BMI, 2020). This was done due to an exceptional situation, caused by increased demand and the simultaneous restriction of face-to-face contacts during the Covid-19 pandemic.

Both online application claims are available via the BA website. On its thematic page for eServices, ALG is listed as a BA service, accessible via the so-called BA Portal. Bürgergeld is listed as a Jobcenter service and the corresponding portal jobcenter.digital is linked. (BA n.d. a). According to the OZG maturity model (BMI n.d. c), this online availability of the application claims meets

the requirements under the OZG. However, the information and service provision via distinct portals follows the respective enforcement competences. As such, the transformation of digital public services centred on citizens is not realised. However, it is being pursued by the pilot digitalisation project called 'Sozialplattform' (Sozialplattform n.d.).

Unemployment welfare benefits	ALG	Bürgergeld
Life situation of unemployment	For one year	Longer than a year
Plattform following life situation	Sozialplattform as part of digitalisation programme 'Föderal'	
Portal following enforcement competence	Portal of the BA	Portal jobcenter.digital
Digitalised service (front end)	Online Application developed by BA IT-Systemhaus	Online Application developed by Hesse
Digitalisation programme	'Bund'	'Föderal'
Digitalised service and enforcement (back end)	BA	Jobcenters
Enforcement competence	Federal level	County and local level
Regulatory competence	Federal level	Federal level

Table 2: Overview of regulatory and enforcement competences as well as OZG implementation responsibilities differentiating between ALG (for one year) and Bürgergeld (for longer than a year). Compiled by author.

The Sozialplattform is a project within the digitalisation programme 'Föderal'. Therein, tandems of federal ministry and federal state(s) are responsible for digitalisation of thematic areas. In the case of the Sozialplattform, the thematic area 'work and retirement' relevant, for which the Federal Ministry of Labour and Social Affairs (BMAS) and the federal state of North Rhine-Westphalia (NRW) held the lead responsibility.

3.2.2. Concept of the Sozialplattform

The concept of the Sozialplattform originates from a preliminary study commissioned by the responsible NRW ministry (SP). This study showed that bundling of services is highly relevant in the context of welfare to help citizens navigate their potential situations of hardship. Accordingly, it was suggested that citizens should be 'taken by the hand' (ibid.). They should be pointed to the support available in their individual situation. Based on this, the idea of a thematic platform was developed. This is to present comprehensive and, in particular, legally reliable information on the applicable social benefit and counselling offers. This means that both public welfare services as well as counselling services from mostly private providers are to be integrated. A so-called

'Sozialleistungsfinder' should be the central component, meeting people in their individual situation and supporting them in navigating it. This is envisaged as a simple guiding questionnaire tool to test potential eligibility for services using only a few details about the personal situation. According to the results, targeted and easily understandable information shall be provided. This includes, for example, a simple explanation of the applicable service and the required documents, along with information on any deadlines, costs and waiting times for processing. It should then be possible to directly submit online applications or receive contact details for the locally responsible authorities or organisations. Supporting functionalities such as direct chat and video counselling as well as appointment scheduling should be offered.

The concept of the Sozialplattform as developed in the preliminary study meets the layered understanding of vulnerability. The Sozialleistungsfinder helps citizens to translate their life situation into a service claim or social counselling offer. The provided information on what needs to be known and arranged for a personally applicable service that is customised. The Sozialplattform can be described as a one-stop-shop. This is due to the function that should be made possible to directly submit claim applications to the authorities responsible in the personal case. Thereby, citizens in situations of hardship for whom interaction with authorities can be a burden are relieved.

3.2.3. Development of the Sozialplattform

Following this preliminary study, NRW has engaged its public organisation for realising the Sozialplattform accordingly: the digital project management organisation, d-NRW, and the technical service provider and operator, IT-NRW (SP). For this and under the condition of following the prescribed process of OZG-implementation as analysed above, they were provided with federal funding of 80 million euros for the three years from 2021 to 2023 (ibid.; Ministerium für Arbeit, Gesundheit und Soziales des Landes Nordrhein-Westfalen, 2022). In March 2022, the Sozialplattform was launched in the form of a most viable product. Since then, it has been continuously developed. The aim is to integrate all public social services and enable subsequent use by states and municipalities until the platform services are directly digitally available nationwide (SP). However, from 2024, the project has significantly lower funding from a consortium of states at its disposal (ibid.). The different kinds of funding entail different decision-making processes as to how to develop further and how quickly progress can be made. Federal funding is conditional on the prescribed process of OZG-implementation being followed. It has been analysed above that the idea of standardisation reflects a universal understanding of

vulnerability, but can lead to orientation towards other understandings of vulnerability due to the room for discretion in the detailing. This is carried over to the implementation via the Sozialplattform. Additionally, a universal understanding of vulnerability underlies the aim of offering all services and advice in the social sector in a bundled and direct manner. However, the reality of implementation subjected to financial and governance constraints may fall short of this universal vision.

Under federal funding in the initial years of the project, the responsible d-NRW was able to involve a private consultancy firm for co-management (ibid.). Various work streams and corresponding teams were jointly coordinated. One of them was referred to as the 'workstream user-centricity', the work of which will be looked at in detail below (ibid.). Overall, it is apparent that the work of this team was consistently set aside, when there was a need for prioritisation due to budget conditions or cuts. The project management describes user-centricity as 'nice to have' (ibid.). Providing service applications online was and is prioritised over 'improvements' (ibid.). This is reflected both in the initial development phase under the federal budget until 2023 and in reduced funding under the joint state budget as of 2024. The federal budget was subject to rigid conditions. In order to comply, topics such as standardisation and enabling subsequent use had to be addressed first (ibid.). Development in terms of user-centricity could only begin once the milestones defined at federal level had been met (ibid.).

From 2024, priorities were no longer based on the uniform OZG-implementation requirements but depended on joint decisions by the funding states (ibid.). Due to reduced financial resources, the dedicated user-centricity workstream was discontinued (ibid.). Nevertheless, results from previous years remain in the backlog and are still being incorporated into the Sozialplattform (ibid.). Overall, developments for user-centricity were put on hold in several respects. This is not particularly indicative in terms of vulnerability. Nevertheless, it is to be noted how the actual implementation has significantly deviated from the implementation as foreseen for OZG service digitalisation. The resources analysed above regarding OZG-implementation, intended to guide implementation, stipulate user-centricity as a central goal and a principle permeating the digitalisation process (BMI n.d. a).

Under the federal budget, developments were conditioned by federal implementation requirements. Following those, required prioritising technical standardisation at the expense of user-centric development. Accordingly, the aim of uniform OZG implementation analysed above turns out to be inconsistent. This relativises the inherent understanding of universal vulnerability.

Once the Sozialplattform was online, the need for user experience testing was recognised as relevant. Initially, the entire website was tested by UX/UI experts, assuming a user perspective (SP). As a result of the expert testing, the so-called signpost concept was developed and implemented (ibid.). Before, stock images of real people were distributed on the Sozialplattform (BMI n.d. d). This was deemed problematic as: 'You do not want to appear clichéd, but people should still somehow recognise themselves' (SP). In response, illustrated characters were developed. These are intended to help users better identify themselves and visually guide them through the Sozialplattform (ibid.). Having experts develop and design the user experience implies that a general approach was followed to fit everyone's perspectives as best as possible. This reflects a universal understanding of vulnerability. However, the idea that users are to recognise themselves on the Sozialplattform through images of people or illustrations modelled on people is based on a particularistic approach. This can be deduced given that such identification requires the presentation of external identity features. This is relativised by the circumstance that both images and illustrations provide contextual depictions in addition to the human ones. For example, information on unemployment welfare services is not simply depicted with a person, but with a person in a working environment or with symbols representing work. Accordingly, the visualisation corresponds to a combination of particularistic vulnerability through the human representations and layered vulnerability through the situational ones.

Only after UX/UI expert development and testing, user tests were carried out. This was done at points considered important: for the Sozialleistungsfinder and, exemplarily, for Sozialgeld, the project's first service to be fully digitalised. (ibid.) While the digital claim applications for ALG and Bürgergeld are already digitalised and will be embedded, the one for Sozialgeld was originally digitalised as part of this project (ibid.). Sozialgeld is a needs-based subsistence security if more specific entitlements are not applicable (Bundeszentrale für politische Bildung, 2021). User testing was necessary here due to the digital formularisation from scratch and the complexity of the benefit requirements (SP). The initial concept was devised by experts, then functionally scrutinised by administrative staff with client contact, and ultimately triallied with a test group according to the beneficiaries' user journey (ibid.). Over a period of months, each item of the application form was discussed by administrative staff in numerous validation loops to finally have an online claim application created (ibid.). This was to be reviewed in a user testing process according to the target group. The NRW ministry rejected the test group on the grounds of insufficient diversity and representation of beneficiaries (ibid.). The project management emphasised the relenca of having a test group able to understand the situation of hardship im question (ibid.). Ultimately, extensive

testing was carried out with a suitable test group for both, Sozialgeld and the Sozialleistungsfinder. Feedback therefrom was translated into design and development requirements (ibid.). These are to be implemented once approved as relevant by the consortium of states funding the project since 2024 (ibid.). The eventual user test involving actual users indicates a layered approach to vulnerability. This is reinforced by the circumstance that the test group had to be recomposed. It appears that the user research, as specified in the OZG-guidelines and analysed above, was not carried out to first determine the target group. Finally, a user test similar to a digitalisation lab was carried out with a test group as stipulated by the OZG-guidelines. Ascertaining that the test group corresponds to actual beneficiaries of the service illustrates an underlying account for layered vulnerability. The real experience of users was included in this approach.

During the development of the Sozialplattform, the invasion of Ukraine took place. This led to a reorientation of priorities. Deviating from the roadmap, the digitalisation of asylum seeker services, for which Ukrainians are potentially eligible, was moved ahead (ibid.). In addition, Ukrainian was added to the language selection (ibid.). Overall, the Sozialplattform is now available in German and simple German, further it is largely accessible in 6 other languages, namely English, Ukrainian, Polish, Russian, Turkish, and Arabic (Sozialplattform). The restructuring of the development process in light of the invasion reflects a layered approach to vulnerability. According to that account, vulnerability is dynamic and relational to context and conditions. When conditions or context change, a layer of vulnerability can be actualised or turn dormant. In the case of the Ukraine, layers of vulnerability cascaded due to the invasion. Addressing this by digitalising responding public services and linguistic accessibility is consistent with the layered approach. In contrast, the further language offer can be referred to as corresponding to particularistic vulnerability.

3.2.4. Future Development of the Sozialplattform

The Sozialplattform is still being developed so that project communication towards citizens is deliberately kept at a minimum (SP). For the launch in March 2022, standard press releases were issued by the responsible ministries (Ministerium für Arbeit, Gesundheit und Soziales des Landes Nordrhein-Westfalen, 2022). However, no campaign was run for citizens. Until now, such a campaign is still being held back (SP). First, further technical integration of more states and municipalities is to take place, which proves to be a lengthy process (ibid.). This is the case due to insufficient resources on part of the municipalities and a lack of legal framework for financing between the various state and municipal levels (ibid.). In addition to NRW, six other states have

their enforcing authorities already connected to the Sozialplattform (FITKO n.d.). All but one of the remaining states are in negotiations or have already agreed to join (SP). This offers the prospect of financial planning security as well as geographical expansion.

Only when the Sozialplattform can offer digitalised direct service applications for a large majority of municipalities, can it present and market itself towards citizens. Until then, the concern is that the Sozialplattform would fail to generate acceptance and use among citizens, possibly even cause frustration (ibid.). The Project management emphasises in the interview that widespread availability and technical maturity are essential in the context of welfare services (ibid.). Users of the Sozialplattform are exposed to hardship that they want to meet with great awareness (ibid.). Accordingly, increasing the number of connected states and municipalities is at the centre of developing the Sozialplattform (ibid.).

The project management of the Sozialplattform implicitly conveys an awareness concerning the layered approach to vulnerability. The platform is conceptualised in a way that it comprehensively addresses layers of vulnerability. If this is not done due to a lack of technical integration, it is necessary to manage expectations accordingly. A non-functioning Sozialplattform presents a negative user experience. It can be argued that a corresponding failure to fulfil the promise of facilitating accessibility to (online) public services represents a stimulus condition. A negative experience with the social platform can trigger that engaging with online public services or administrative matters in general presents itself as challenging to some. A possible consequence is that individuals do not claim the services they are entitled to.

3.2.5. Interim Findings on Unemployment Welfare Services Implementation via Sozialplattform

In summary, it is evident that the aim of how the social platform is to be ultimately designed reflects a pronounced understanding of layered vulnerabilities. The platform's service offer centres on life situations. It translates these into personally relevant information and provides an integrated online claim application. However, due to financial constraints and prescribed priorities, the social platform is not realising this aim. Additionally, due to being under development, the Sozialplattform may have the opposite effect than it actually aims for. Not all social services are yet embedded. Furthermore not all states, municipalities and other enforcement authorities are yet connected for subsequent use to enable direct online claim application. In this beta version, the Sozialplattform may have an impact on citizens' sentiments towards (digital) public services.

3.3. Mediation Between Citizens and Digitalised Unemployment Welfare Services via Jobcafés

A third stage of implementation can be formed and analysed in terms of how citizen-centricity is reflected therein. This level is not provided for in the legal requirements of the OZG or its implementation programmes. Nevertheless, it represents a logical continuation in their sense.

In the following, public initiatives that mediate between citizens and digitalised unemployment welfare services are considered. So-called Jobcafés are pilot projects by Jobcenters in cooperation with organisations for adult education. The Jobcafés considered here are the CUP digital im Munich (CUP Digital Munich n.d.) and the café digital im Hamburg (Café Digital Hamburg n.d.).

3.3.1. Concept and Realisation of Jobcafés

Jobcafés are devised as walk-in contact and counselling service points (CUP Digital Munich n.d.; Café Digital Hamburg n.d.). In a café lounge atmosphere, they offer Jobcenter clients individual assistance and training in digital affairs in general and related to employment (ibid.). Clients can receive support, for example, with managing mails and compiling application documents or researching vacancies online (CDH). Personal counselling is provided at the first contact to identify individual concerns or needs (CDM1; CDH). Specific needs are addressed directly. However, it is key to invite clients to join further offers at the Jobcafé to learn how to do this on their own in the future (CDM1; CDH).

It is important to recognise that clients do not manage their affairs independently due to a barrier of some kind (CDM1). What this barrier is, needs to be determined through personal counselling with coaches trained in socio-educational techniques (CDH). Barriers can lie in unfamiliarity with different digital tools and their functions, lack of trust regarding data security, unwillingness to engage with digital topics as well as fear of acknowledging digital illiteracy (CDH; CDM1, CDM2).

Jobcafés offer various approaches to address these digital barriers. The guiding principle of the Jobcafé concept is voluntariness (CDH; CDM1; CDM2). Clients visit the Jobcafé on their own initiative or upon recommendation of administrative staff at the Jobcenter or other social support providers (CDM1). Nonetheless, they themselves decide how to engage with the Jobcafé offer.

At one Jobcafé, clients are invited to do trial days (Café Digital Hamburg n.d., Probetage). Familiarising themselves with the dynamics first helps to convince clients to request formal participatation in the Jobcafé programme. The Jobcenter determines the length of the programme, spanning from two weeks to three months (CDH). When partaking in the programme, clients are afforded flexibility. They decide for themselves how much they want to and can attend, depending on their life situation. There is only a minimum of 8 hours a week attendance required which can be freely scheduled (ibid.). Other training programmes that the Jobcenters refer clients to are often compulsory and more rigid, either in part- or full-time (ibid.).

In addition to voluntariness and flexibility, the training programme aims to reduce digital barriers. A broad, changing portfolio of workshops is offered. Training is held in small groups, taking into account different levels of experience (CDM1, CDH). Workshops include topics such as setting up a mail address, discovering smartphone functions beyond calling, setting up a CV with MS Word, searching for a job on the Internet and the BA portal, applying for Bürgergeld via jobcenter.digital (CUP Digital Munich n.d., Workshops; Cafe Digital Hamburg n.d., Workshops). These vary depending on clients' needs or trends (CDM1). Furthermore, there is the opportunity to try out new technologies such as 3D printers, VR glasses, or drones (websites, CDM2). This should incite interest to learn using digital tools and technological devices (CDM1, CDH).

The Jobcafé programme is designed to be diverse and adaptable. In consultation with the local Jobcenter, it is possible to respond to new client needs, trends in digital development, the labour market or the legal situation regarding unemployment welfare services (CDM1). In this form, the concept of Jobcafés reflects a layered approach to vulnerability. The offer is individual and conceived in a way that it can account for changing conditions.

3.3.2. Interaction with Clients at the Jobcafés

The spectrum of Jobcafé clients is broad. Generally clients have no or little previous experience or willingness to interact with digital devices and services (CDM1; CDH). This can be manifested in an intertwined way. There are clients who cannot find and use the @ sign (CDH). Accordingly, they may have no e-mail address or cannot use it. However, an e-mail address is the basis for many, increasingly digitalised services, conditioning their access and use. In addition, both client and training needs can be differentiated within themselves. There may be clients who are adept at using smartphones however, not computers (CDM2). Jobcafés aim to disentangle these constructs and determine needs for training. Therefore, individualised support as of the lowest-threshold is

offered (ibid.). As such, it characterises a layered approach to vulnerability. Beyond that, the notion of universal vulnerability can be present. All clients receive support according to their needs, regardless of any identity characteristics or group affiliation. Jobcafés can thus be considered as universally conceived, at least among Jobcenter clients.

3.3.3. Origin and Circulation of the Jobcafé Concept Idea

The origin of the Jobcafé concept goes back to the Jobcenter Munich. During the Covid-19 pandemic, it became increasingly apparent that many clients had difficulties interacting with the Jobcenter and its services online (CDM1). Administrative staff with contact to citizens noticed reservations towards digital services, and signs of digital illiteracy (CDM1; CDM2). This was considered problematic given that the BA and Jobcenters increasingly seek to digitalise to work more efficiently (CDM2). Beyond providing needs-based subsistence, the central objective of Jobcenters is to reintegrate citizens into the labour market (CDH). To this end, training programmes or job placements are administered. For both, digital skills are generally presupposed, at least at a basic level (CDM2).

The management of the Munich Jobcenter identified the need to respond. In a multi-stakeholder process, comprising Jobcenter staff, adult education providers, employers, chambers of commerce as well as Jobcenter clients (ibid.), the idea to establish a Jobcafé came about. This concept has been originally implemented in Munich in May 2022 (CUP Digital Munich n.d.; CDM1). The Hamburg Jobcenter inaugurated an equivalent based on this role model in December 2023 (Café Digital Hamburg n.d.; CDH). From the standpoint of Jobcenters, this concept serves two purposes: first, equipping unemployed citizens with basic digital training necessary for further training and job placement; second, enabling and encouraging the use of their digitalised services (CDM1). The format of a Jobcafé is perceived as compelling l to such an extent that two further Jobcafés are currently tendered in Hamburg (CDH).

3.3.4. Interim Findings on Mediation Between Citizens and Digitalised Unemployment Welfare Services via Jobcafés

Analysing through the lens of vulnerability, it can be argued that the Jobcafé concept is delayering vulnerabilities and dispositions thereto. It responds to the coinciding of two key cascade layers of vulnerability. These mutually reinforce themselves when actualised, namely unemployment and a lacking or limited basic digital skills. This is unpacked in the following.

As elaborated above, unemployment can constitute a vulnerable situation that is to be avoided or addressed. Applying Luna's reasoning, this should even be a priority considering that unemployment can be a cascade layer (Luna 2019, 92). This means that in case of unemployment, a chain of events can be set off. Further vulnerabilities or dispositions thereto can be incited. Unemployment can mean lack of income, which in turn can make it a burden or even impossible for individuals to provide for their subsistence. Contextual conditions change due to unemployment. Thereupon, individuals generally need to search and find a job. They are required to interact with the unemployment authorities, the BA and / or a Jobcenter. They need to register their unemployed status in order to receive ALG to mitigate their loss of income, job counselling as well as training and job placements. If dispositions present this as a challenge, layers of vulnerability can be actualised (Luna 2019, 91).

Similar to unemployment, digital illiteracy can be a cascade layer of vulnerability. Everyday life is increasingly digitalised to such an extent that a lacking or limited digital skills can lead to vulnerabilities, for example in terms of social participation. When unemployment and digital illiteracy coincide, intertwined dispositions or layers of vulnerability can be triggered. For example, finding a job is all the more without digital skills given that many vacancies are posted online. Interaction with the BA and / or a Jobcenter can be daunting if, for example, supporting documents for a claim application would have to be submitted online as part of increasingly digitalised service offer. Thus, digital literacy and unemployment can cascade in an intertwined way, creating a digital administrative burden.

In this vulnerability construct, the digitalisation of public services can be understood as a stimulus condition. The disposition of digital illiteracy is triggered in relation to the digital service offer. Recognising this effect is relevant when considering that a central objective of digitalisation is to alleviate administrative burdens for citizens. With a limited digital skill set, however, this disposition to vulnerability and corresponding imperative to avoid its triggering can be missed. Instead of tackling a potential administrative burden, it may be reinforced by the digital dimension. The offer of Jobcafés responds to these intertwined layers of vulnerability in unemployment and lacking or limited digital skills. In the way it is conceptualised and realised, it aims to mitigate these. Depending on how customers accept the offer (CDH), the intertwined layers of vulnerability can even be resolved.

4. DISCUSSION

The findings of the analysis are discussed in the following. It is established how vulnerability is accounted for across the three implementation stages of digitalisation. The planning, execution, and mediation of the digitalisation of public services reveals how vulnerability is understood. The understanding of and responsiveness to vulnerability is indicative as to how the principle of citizen-centricity is realised: First, if vulnerability is understood according to the particularistic approach, measures would be adopted to take special account of the diversity of citizens, making sure not to discriminate based on identity feature or fixed circumstances. Accordingly, digitalisation would be citizen-centric in an inclusive way. Second, a universal account to vulnerability is applied when citizens are deliberately not distinguished in the development, design and delivery of digital public service. Digitalisation based on that would be citizen-centric by treating all equally. Third, a layered approach to vulnerability is underlying when the contextual and changing nature of life situations is recognised. Digitalisation along these lines would be citizen-centric in an equitable way.

4.1. Planning for Equality, Implementing Inclusivity and Equity

Detailed, standardised guidance is provided on how to digitalise and implement the OZG. This implies a universal understanding of vulnerability, aiming to treat all citizens equally. However, this is undermined in a two-fold way, specifically regarding the development of digital public services: On the one hand, the details of the guidance set out to give special consideration to citizens based on their identity and situation. This is particularly the case with regard to user research and its sub-elements such as target grouping and modelling of personas and user journeys. Universality through standardisation is suspended, as user research also accounts for particularistic and layered vulnerability. On the other hand, in the actual implementation, the guidance specific to user-centricity had to be deprioritised. Taking the social platform as an example, it was shown that other parts of the guidance, such as technical standardisation, take precedence. Accordingly, user-centricity was not implemented as prescribed, but rather on the project's own accord. The guidance has no equalising effect as its details are inconsistent with universality and because it is not followed.

Guidance for coherence is also given in terms of service design. Again, an understanding of universal vulnerability is reflected accordingly. However, this is - also again - overridden in two

respects: on the one hand, leeway is given in parts on how to design in a user-centric way; on the other hand, in some parts, concrete measures are prescribed to provide special consideration for diversity. It is, for example, laid out that digital assistance should be provided and that the uptake of digital services should be promoted. Yet, it remains open as to what kind of measures are suitable and should be implemented. It is not specific who or what situation such measures are to address. Due to this flexibility, implementation here will be different and thus not universal. Measures can be based on a particularistic and / or layered understanding of vulnerability. At the same time, there are specific requirements to use gender-neutral, simple, as well as sign language, for example. This implies the aim to ensure special attention and support based on fixed features such as identity and language . As such, it corresponds to the particularistic understanding of vulnerability and contradicts the goal of a universal design that serves everyone equally.

Synthesising this, it can be seen that, at planning level, the idea is introduced to account for universal vulnerability and to digitalise in a citizen-centric way as to provide equality. However, this is done inconsistently and does not translate into the actual implementation. Therein, the particularistic and layered vulnerabilities are reflected instead. Thus, it can be inferred that digitalisation is citizen-centric in an inclusive and equitable way here.

4.2. Equality for All but Some

The layered understanding of vulnerability is particularly prominent in the analysis of Jobcafés and the Sozialplattform, which was examined exemplarily for digitalisation in the context of unemployment welfare services. This needs to be unpacked and put into relation and context. The concept of the Sozialplattform as it is aimed to be ultimately realised corresponds with the layered approach to vulnerability. The Sozialleistungsfinder is intended to help translate how the personal situation may be addressable by an entitlement to social services. It provides information on personal eligibility and enables a corresponding digital application to be made directly to the competent authority. This reflects the layered account as the Sozialplattform customises public service delivery. However, the Sozialplattform is still in development. Not all social services are integrated and not all states, municipalities and other enforcing authorities are connected to enable the embedded digital claim application. Thereby, the vulnerability following the layered approach is only partly accounted for. This means that vulnerability is recognised as depending on individual, changing circumstances, but a corresponding response cannot be realised.

When the Sozialplattform is eventually implemented according to its concept, it could be assumed that this digitalisation accounts for layered vulnerability in such a way that it is universal. This could be claimed on the grounds that its offering is customisable to such extent that it responds to all individual circumstances. This would then correspond to universality. However, this claim must be rejected. It can only be argued that digitalisation as envisaged for Sozialplattform accounts for almost all conceivable layers of vulnerability, that it approximates universality. This is because there is one disposition for which the Sozialplattform cannot cater: lacking and / or limited digital skills.

This gap is bridged by Jobcafés. They equip citizens with digital skills, enabling them to access and use digital public services. The concept and the realisation of Jobcafé represent an understanding of vulnerability as layered. Their programme is customised to the intertwined life situations of being unemployed and having insufficient digital skills. Through their low-threshold, flexible approach, Jobcafés are able to recognise and respond to the individuality of the circumstance of lacking digital skills. With their personal counselling and workshop, they set out to change this circumstance to achieve digital literacy.

In summary, it can be argued that if all public services are digitalised as the Sozialplattform aims to, almost all life situations and vulnerabilities are accounted for and equality is established. However, this is subject to the provision that lacking or limited digital skills cannot be treated equally. For this and intertwined dispositions, digitalisation of public services can only be citizen-centric if they continue to be equitted in other ways such as via the Jobcafés.

CONCLUSION

In summary, this thesis attempts to contribute to the understanding of citizen- centricity in the digitalisation of public services. This was pursued through a research design aiming understand how vulnerabilities are accounted for in the citizen-centric digitalisation of unemployment welfare benefits in Germany. Following the research questions, it was determined how digitalisation implementation is envisaged, executed, and mediated and analysed as to how vulnerabilities are accounted for. From this, insights were drawn into how citizen-centricity can be realised.

The analysis of vulnerability in the envisaged, executed and mediated implementation of digitalisation was specified by means of a case study. The implementation of public service digitalisation was considered in the German context. This selection is relevant for the overall question as the OZG presented an ambitious push to catch up with administrative digitalisation. Since adoption of the OZG, many digitalisation projects have been implemented and are under development, especially in the context of unemployment welfare services. As a result thereof and due to the competences in regulation, enforcement, and digitalisation being spread across federal structures, the implementation is well documented in guidances and pilot projects. Within the German setting, the focus was placed on digitalisation in the context of welfare services, particularly unemployment welfare services. Considering unemployment is relevant in terms of vulnerability given that it can represent an existential situation hardship, potentially intertwined with other vulnerabilities.

In oder to examine how vulnerabilities are taken into account, an analytical lens was modelled. This lens integrates three understandings of vulnerability: particularistic, universal and layered. As such, it was applied to three stages of implementation to determine which understanding of vulnerability is underlying. First, the envisaged implementation of digitalisation under the OZG was analysed. Second, the actual implementation in the context of unemployment welfare services was examined via the example of the Sozialplattform. Third, it was applied to Jobcafés that mediate between citizens and digitalised unemployment welfare services. Thereby it can be established how vulnerability is recognised and responded to

This was ultimately indicative as to how the principle of citizen-centricity is realised. Digitalisation of public services based on a particularistic understanding translates to citizen-centricity as being inclusive and non-discriminatory. Whereas, digitalisation according to a universal approach of treating everyone equally implies citizen-centricity to be concerned with equality. However, where a layered account of vulnerability is underlying, citizen-centricity would be realised as pursuing equity.

The work addressed the overall research aim as to how vulnerabilities are accounted for in the citizen-centric digitalisation of unemployment welfare benefits in Germany. By researching and answering this, a contribution to the understanding of citizen-centricity in the practice of digitalising public services was made.

It was found that an account for universal vulnerability and, thus, citizen-centricity providing for equality was attempted with the uniform planning of OZG implementation. However, this was both inconsistent and not followed through the execution of digitalisation. Therein, citizen-centricity can rather be realised as inclusive and / or equitable given the underlying accounts for particularistic and layered vulnerability.

Furthermore, it was deduced that citizen-entricity can translate into approximate equal treatment. This would be the case if almost all life situations and vulnerabilities were captured by comprehensive customisation as intended by the Sozialplattform. However, approximately equal actually ends up being equitable citizen-centricity, as no equal treatment is possible for the life situation of lacking or limited digital skills. Accordingly, citizen-centricity can only be expressed in equity via measures outside the public service provision itself, such as in Jobcafés.

Overall, this work provides a holistic account of the translation of citizen-centricity into practice across three stages of digitalisation implementation based on three understandings of vulnerability. This is however subject to limitations. In particular, generalisability is limited given the narrow data foundation due to restricted availability. Generalisability is further limited in that only single case study was conducted. These limitations can, however, grow into avenues for further research.

While this thesis has considered the perspective of project managers of digitalisation projects such as the Sozialplattform and Jobcafés, also the experience of citizens would be insightful. By analysing their perspective, the results of this work could be expanded and the validity of the specially modelled analytical lens of vulnerability could be sharpened.

Following this, the analytical lens could also be tested in different national digitalisation contexts. A first application to a similar case for confirmation and further application to a different case for scrutinisation could be interesting. Case similarity and difference could, for example, lie in the distribution of competences and responsibilities.

Such further research approaches could inform about the transferability of the analytical lens as well as its parts. Thereby, the applicability of Fineman's universal and Luna's layered vulnerability conceptualisations to the context of public administration can be further determined.

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