



# The Hidden Costs of Digital Self-Service

Administrative Burden, Vulnerability and the Role of Interpersonal Aid in Norwegian and Brazilian Welfare Services

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## ABSTRACT

It is a global trend to transform our contemporary societies through the development and adoption of new information technology which spans across social structures and challenges established institutions. The promises of economic efficiency make it almost imperative to digitally transform public services, and as a result, self-service has increasingly become adopted within the public sector. Digital self-services have been promoted as the panacea for improving public services' responsiveness while reducing governments' expenditures, ultimately lowering general taxpayers' burdens when dealing with public administration. However, the cost for citizens in relation to the loss of service once provided in person is relatively unexplored. In this article, we resort to the theory of administrative burden to understand ways in which digital self-service solutions externalize costs to the citizens in need of public welfare services by imposing new types of burdens in distinct welfare state settings, namely in the Brazilian and Norwegian contexts. We perform unstructured, theory-informed content analysis on observations and interview data from welfare service office settings in both countries. Preliminary findings show how digital self-service in welfare policies sets the stage for interpersonal aid or intermediaries, which are given different names and are understood in different ways according to the countries' institutional environments. The article problematizes digital self-service from an economic distributive justice stance and shows how such challenges are dealt with in two different welfare contexts, highlighting ethical issues in cases where digital self-services risk further marginalizing vulnerable groups of citizens.

## CCS CONCEPTS

• e-Government; • Field studies;

## KEYWORDS

Administrative burden, welfare policy, social policy, bureaucracy, digitalization

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## 1 INTRODUCTION

Self-service in public policies has become a common goal in public administration. It holds values of active citizenship and participation through Information and Communication Technologies (ICT), expected to improve citizens' connection to government and access to information [16, 19]. In effect, self-service draws on the promise of ICT-powered efficiency in so-called digital government or e-Gov policies, promoted as the solution to the typical challenges faced by public organisations [4, 28]. The promise is delivered through the ICT-enabled streamlining of administrative procedures [46], which enables the reshaping of interactions between citizens and public services. Roles and responsibilities of citizens and public officials become rearranged, reducing street-level service provision as interpersonal service is replaced by digital interactions [9, 13].

As a consequence of this shift in public service provision, citizens are expected to perform tasks previously performed by officials, placing increased responsibility on them [11]. In the case of welfare policy, this shift also threatens the right to equal access to public services for those who struggle with digital self-service procedures and service automation [45]. This is often the case of welfare policy clients, who lie on the margins of society—digital self-service thus represents an extra burden on those most vulnerable [30, 44, 45]. Much research has addressed this unbalanced load distribution, and the administrative burden framework has proven to be valuable in conceptualising these asymmetries [17, 25, 27, 31, 34].

We explore how the administrative burden arising from digital self-services can impact the vulnerable citizens' struggle to access social policies in the contexts of two different welfare state scenarios, namely Norway and Brazil [1, 20]. Inspired by previous research, we understand administrative burdens as the cost citizens bear as they carry out administrative activities imposed by government regulations to receive the benefits they need [17]. We pose the research question: How does digitalization of social welfare services affect citizens' administrative burden in the distinct Brazilian and Norwegian contexts? To answer this, we analyse qualitative data collected from observations and interviews with citizens facing digital self-service procedures to access cash-based welfare benefits. Preliminary findings point out how the administrative burden posed by digital self-service creates room for the emergence of different forms of interpersonal aid and highlight the unintended (and undesirable) implications in the different welfare state contexts.



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## 2 CONTEXT - DIGITAL SERVICES DEVELOPMENT IN WELFARE STATE EXTREMES

Aside from the well-known differences between welfare state principles and settings, understanding the distinct policy evolutions culminating in the digitalisation of welfare cash benefit services is important to make sense of the preconditions posed in the contexts under study. In this section, we briefly describe the welfare policy implementation developments in the direction of ICT-enabled self-service in the Brazilian and Norwegian contexts. We focus on the digitalisation paths threaded by the countries' main national welfare policy agencies, namely the Brazilian National Social Security Institute (INSS) and the Norwegian Labor and Welfare Administration (Nav).

In Brazil, the federal government tip-toed digitalisation reforms since the late nineties, as a solution to the suspension of government spending following strong neoliberal agendas. At the time, INSS was the target of an all-encompassing digitalisation program, the *Novo Modelo de Gestão* ('New Management Model'), in which different citizen registry databases would be unified, with the intent of automating benefit-granting decision-making [21]. The program stalled several times, despite putting up a web portal for orientation and services in the early 2000s. In 2014, as 46% of the INSS workforce was expected to retire [49], a collection of smaller, more agile projects implemented all-encompassing digital transformation in a hurried fashion between 2017 and 2019 [2, 43]. The logic was simple: workforce traditionally providing in-person assistance to citizens was gradually reallocated to focus on benefit-granting activities, concentrated either in isolated offices or in 'high performance', home office virtual groups, while growing service office queues nudged citizens to seek remote service channels—call centres and the new web portal and app, *Meu INSS* ('my INSS'). In 2019, the agency restricted the option for people to visit its offices, forcing virtually all benefit applications to be made remotely [32].

In Norway, the government released a centralized, all-encompassing digitalization strategy in the Spring of 2019 [36], where Nav is a key player, managing one-third of the national budget. However, Nav had already taken earlier significant steps into full digital transformation, especially: 1) an organization-streamlining reform in 2005, 2) the establishment of the web portal *Nav.no* in 2006, and 3) the *my Nav* online service platform in 2010, allowing citizens to conduct part of their business by themselves [38]. Nav digitalization gradually outdated paper-based bureaucracy and replaced in-person desk service with digital self-service interaction. During the COVID-19 pandemic, the speed of digitalization in Nav increased and limited opening hours for office visits spurred the design and implementation of new digital channels for interaction. To support this change, Nav offices relied on self-service available remotely at *Nav.no* and at self-service stations at the Nav offices, which citizens are nudged to use when they come to apply for benefits. This shift comes with challenges as the 'screen bureaucracy' expects citizens to self-manage their cases in an environment where decision-making has become standardized [24]. The push to make digital interactions citizens' first choice in social welfare benefit applications has been a challenge, as not every citizen is properly equipped for digital interactions [33].

Attendance in both agencies is diverse—citizens come across them at different stages in their lives, as welfare service encounters are usually triggered by life-changing events. Accordingly, both agencies manage comprehensive portfolios of welfare policies in their respective countries [42, 47], which include cash-based, means-tested social assistance policies, meaning that entitlement to benefits depends on meeting criteria related to their need for welfare support. These policies necessarily involve more complex procedures—and thus administrative burden—and are at the core of this study.

## 3 ADMINISTRATIVE BURDEN

Administrative procedures in public services are often a result of the layering of different political priorities over time, and thus a mix of diverse policy steering and implementation standards [14]. Hence, individuals facing those procedures typically face rigid, complex and hard-to-navigate multitudes of forms, regulations, and decisions. These elements can be seen as administrative burdens, imposing transaction costs on citizens, who are required to spend their resources to access public services [12]. They become critical as they impact citizens' lives and their access to fundamental rights, besides often playing a role in reinforcing existing inequalities [26, 27]. In the universe of welfare policies, means-tested services are especially affected by administrative burdens, as they usually involve higher transaction costs to the level of eligibility-testing complexity [48]. In this sense, the theory of administrative burdens has been used to showcase how vulnerable groups of people that should fit in different welfare policy programs according to eligibility criteria are not reached precisely because eligibility-checking (e.g., means-testing) became too burdensome [18].

Administrative burdens are described as impacting different aspects of individuals' lives and can take different forms. Generally, burdens can be understood as costs citizens face in their transactions with the public sector, which they must overcome to access public services [37], and are composed of three dimensions or elements, explained as costs [27]. First, learning costs are the time and effort an individual must spend to learn about the service, how to access it and its eligibility criteria. Second, compliance costs derive from the requirements concerning beneficiaries' activities under the regulations at play, being the effort employed to keep up with their eligibility. Third, psychological costs are associated with the stress or stigma that administrative procedures can impose on service applicants [37]. These different costs are often interlinked. Costs born out of compliance demands, for instance, can be stigmatising and constraining for individuals, thus spilling over in the form of psychological costs [6]. For example, the compliance cost of providing the right documents to fulfil eligibility criteria entails psychological costs of frustration and stress linked with the experienced loss of power and autonomy due to imperative control and supervision [34].

Furthermore, how individuals cope with administrative burdens is related to their executive functioning, a key form of human capital, expressed in the ability to master and initiate interactions with the state. People with impaired executive functioning as a result of difficult life situations often experience administrative procedures as overburdensome, as they struggle more than others to

comply with the same requirements [17]. Research also shows how executive functioning is impaired by experiences of scarcity individuals face due to financial, time and social support shortcomings [34]. Poverty thus may reduce the capacities of citizens and is often connected to lower cognitive resources [35]. Altogether, these mechanisms drive a multiplying effect, creating composite administrative burdens, where the more complex one's life situation, the more costly administrative burdens are perceived and handled [22].

#### 4 DIGITAL SELF-SERVICE ADMINISTRATIVE BURDENS

The effects the adoption of digital self-service has on administrative burdens are manifold. The implementation of digital technologies in public sector organizations often is the result of reform programs aiming to reduce the inefficiencies caused by the burdens of bureaucracy imposed on individuals within the organization [50, 51]. In line with the organisational perspective, previous research state that digital government services can reduce burdens for business in their interaction with government [52]. From such arguments digitalization of public services has the potential to ease burdens by enhancing administrative procedures and to create better services for the service users [50, 51] by reducing time, information search and coordination costs for citizens, businesses, and government [53].

The potential of digital services as a cure for bureaucratic inertia became an important policy theme [52]. Arguments in favour of burden reduction by the smart use of information have, in many cases, made electronic procedures and services the dominant channel for delivering public services [54]. From such logic, digital self-services hold great potential to ease the administrative burdens of citizens interacting with the welfare state through standardisation, access, and equal treatment. However, the reality citizens experience can diverge from this picture. When citizens face more complex life situations, standardised forms become a challenge, as they do not fit their reality and needs [34]. In such cases, digital procedures can worsen the experienced burdens and make application procedures more complex, at worst contributing to situations of digital vulnerability and service exclusion [5, 44].

Madsen et al. [34] have shown how digital self-services can increase administrative burdens in a Scandinavian context where such digital procedures became mandatory. While administrative burdens can be reduced by digital service procedures, these seldom cover citizen profiles evenly, and citizens in standard cases or situations are more likely to benefit [31]. In the specific context of means-tested cash benefits, citizens' burdens can be both reduced and enforced by digital self-services growing in connection to political ambitions [25]. On the other hand, Giest & Samuels [23] highlight how the social infrastructure can help mediate barriers and burdens born from digitalization. In a similar vein, Herd & Moynihan [27] account for the importance of support mechanisms, such as the reliance on a third person's help, as vital elements for citizens to cope with administrative burdens, especially for those in vulnerable situations.

The perspectives show the relevance of improving the understanding of administrative burdens in digital self-service procedures. However, empirical research is still needed, especially throughout

diverse contexts [41], as previous research has revealed gaps in citizen-oriented service areas and cross-country comparisons [55]. Our research bridges such gaps by addressing how administrative burdens play out in the Brazilian and Norwegian social security services, and how they are perceived by citizens in the different welfare contexts.

#### 5 RESEARCH DESIGN AND METHODS

We are interested in how digitalization affects administrative burdens in different contexts. We focus on welfare cash self-service policies, as citizens seeking those tend to be socially vulnerable, thus more prone to composite administrative burden costs. Our research question is: How does the digitalization of social welfare services affects citizens' administrative burden in the distinct Brazilian and Norwegian contexts? We answer it by employing theory-directed content analysis [29], extracting meanings from different sets of qualitative data collected from matching datasets from the Brazilian and Norwegian contexts. In both the Brazilian and Norwegian contexts, we rely on interviews and observations gathered at INSS and Nav offices between 2022 and 2023. We interviewed specifically citizens who were living through the process of benefit application, 12 (lasting 5-20 minutes) across three INSS offices and 12 (lasting between 5 and 45 minutes) in Nav offices. In the Nav case, citizens interviewed were selected among those directed to use digital self-service stations. Altogether, 24 interviews and 24 observations were coded and analysed in NVivo. In the following paragraphs, we report our preliminary findings, shedding light on which kinds of formal and informal structures are born or reinforced by the changes in administrative burden caused by digital self-service implementation, notably on what concerns the usage of support mechanisms.

#### 6 PRELIMINARY FINDINGS

In this section, we pinpoint some preliminary findings to showcase the general direction the research has, so far, taken us. Confirming current literature, both contexts highlight relevant increases in administrative burdens, reinforced by the implementation of digital self-service. Brazilian INSS observations show that the offices provide limited assistance to citizens, and sometimes blame them for the challenges they face in benefit processing. Citizens are questioned about their own lack of information and difficulties in monitoring their applications, especially on digital platforms. This enforces the psychological costs of stigma as a citizen who came to the office to get personal assistance expressed: "I always feel treated with disregard (at the office). It feels like I'm asking for a favour, begging for help" (BI5). Whilst such experiences of mistreatment in the office input psychological costs to citizens, they can conceal an indirect strategic choice: inadequate office resources by design can nudge citizens to seek online self-services. When such services are adequate, they may ease psychological costs related to stigma – at least for those citizens with equipped to access them. On the other hand, they can leave citizens to their own devices (sometimes literally), creating extra compliance costs as they struggle with on-line service procedures, eventually having benefits unduly rejected. "...The physical unit should always exist because the situations are complex... people do not understand regardless of education.

I don't know if I made a mistake (using the app) that led to the problem with her registry". (IB1).

Other citizen experiences developed a mistrust of technology itself, the INSS IT systems, or the self-service application procedure. The unreliability can also generate compliance costs, as digital solutions supposed to improve access to services do the opposite, with citizens spending much of their time trying to get enrolled in the system: "The (IT) system is always down. . . I only used phone 135 (INSS call centre number) because you cannot go to the office without an appointment. I don't use the app, it's also usually down. To book an appointment today, I called 20 times (due to system failure). I tried a few times to use the app, but it has always had some error. Why can't I send the documentation through email or WhatsApp? (IB2). This account reveals a wish for common use, nonstructured, and ultimately reliable channels for service access.

Accordingly, even if working properly, digital systems lacking adequate means for citizen interactions end up creating undue compliance costs. As citizens do not master the service procedures and requirements – many welfare services are not accessed every day by citizens – they demand an extra service layer, broker or proxy to facilitate their interaction. When the state does not provide it, citizens depend on third parties, often representing an extra compliance cost, when they need to pay for the mediating service, besides the psychological costs of losing control and autonomy in dealing with their own business. One such broker at an INSS office explains the service they provide as charity, however, in the same interview, make it clear that the assistance is not free of charge ". . . when the person starts to receive it (the social assistance benefit), he or she will have to pay the tithe to the church." (IB4). In a sense, as services are technically available, citizens are trading the learning costs imposed by digital self-service for straitly pecuniary costs.

As seen in INSS, Nav observations highlighted the different types of costs met in digital self-servicing. Most common were psychological costs, in the form of stress and frustration, present not only when the self-service system did not work as expected, but also when citizens struggled to pay the learning costs of digital procedures, or even to navigate Nav's web portal to find the services they need. Some citizens resisted digital self-service and had never used it: "I suffer from mental illness. I have contact with a person at Nav, and I think that she is good to talk to, she helps me if I wonder about something. . . the digital Nav does not suit everyone. . . (N17). Other citizens experienced psychological costs from having to go to the office, as the digital service did not contemplate their needs "I applied digitally. The application was not a problem, it was easy to apply, but I needed to meet someone to talk to in addition. . . I can tell that the treatment you get at the office is not always nice. They are stressed and don't have time to help you". (NI4)

Compliance costs were also increased, as at times citizens struggled to use the digital self-service and, in some cases, they just gave up and left the office. Besides, as also reported in INSS observations and interviews, many citizens observed in Nav offices said they got others to intermediate the digital service procedure, most often family or friends. Likewise, when citizens were directed to use Nav's self-service stations and no assistance from frontline workers was available, citizens often turned to other citizens, security guards and the observing researcher for help and guidance.

The reliance on support mechanisms in the form of interpersonal aid or intermediation was the prevailing finding in both contexts. In Nav, interpersonal support from frontline workers or third parties proved crucial for many citizens to overcome the burdens imposed by digital self-service. They provided guidance out of their own experience not only for dealing with the self-service system per se but also acted as dialogue partners for the citizens, helping with the application requirements and interpreting information. At times these informal helpers or intermediaries were family members or friends, so-called 'warm experts' [7, 40], but often they were actual third parties. INSS observations and interviews also made it clear how digital transformation increased citizens' need for assistance and their dependence on others' help when applying for benefits. Yet, in the Brazilian case, third-party intermediation often came in the form of for-profit brokers for public services, known, among other names, as despachantes (roughly translatable as 'dispatchers'). Despachantes are usually self-employed bureaucracy experts, who charge citizens for representing them in the face of public services [8].

## 7 PRELIMINARY DISCUSSION

In this section, we briefly discuss the findings so far and future steps. Overall, findings in both contexts subscribe to current literature on how human support mechanisms reduce or compensate for the administrative burden citizens experience in digital self-service. However, INSS findings pointed out that the further distance imprinted by digitalisation provides despachantes, professional for-profit brokers for public services, an opportunity for thriving over citizen vulnerability. Brazilian despachantes enjoy professional status, both in the cases where they are formally attorneys-at-law or despachantes documentalistas ('documentalist dispatchers'), as recently recognized in Brazilian law [10]. So, to say, Brazil has an already established market of helpers or intermediaries for public services, who straightaway profited from the new administrative burdens born out of digital self-service in welfare policies.

Nav observations also highlight how many citizens depend on external aid in self-service procedures, often provided by friends, family members, and, during data collection, from the researcher herself. It was also clear how the different kinds of costs – learning, compliance and psychological – faced by self-serviced citizens are intertwined and influence each other. For instance, spending time to master digital self-service procedures can be understood as both a compliance and a learning cost, and often transcended into psychological costs of frustration and stress for the citizens.

The findings so far help to acknowledge a critical perspective about the reliance on third parties to deal with digital self-service in welfare policies that relate not only to the digital service functions but also to the political context in which these services are developed and provided. Often public digital services draw inspiration from existing private business practices, encouraging customers to actively engage in various processes, enhancing the likelihood of successful market transactions by validating their efforts, and thus creating market loyalty [15]. The public service provider, for the sake of efficiency, instead of investing to improve service provision, indirectly relies on third parties to meet real citizens' needs. The citizen is the one then paying for services that were expected to be

covered by taxes: either in the form of ‘soft’ administrative burdens or as actual private professional service – the case of Brazilian despachantes.

We expect to further develop our research into a framework that accounts for this responsibility shift resulting from digital public self-services, and its effects on public sector entities’ established structures. The research also entails interesting considerations concerning the value of human contact and the problems of disconnecting social entanglement from service procedures. That is, digital self-servicing does not erase interpersonal interaction, but evicts it to another arena: citizen-to-state interaction is substituted either by citizen-to-citizen (as in the Nav case) or citizen-to-business (as in the INSS case). The question that we need to carefully consider is whether this is desirable, and what kinds of challenges and risks arise in such a rearrangement of roles and responsibilities.

## 8 CONCLUSION

Administrative burdens are the product of political decisions and are impacted by contextual circumstances as well as administrative procedure specifics, evidenced in both welfare contexts explored in this paper. In Brazil, despachantes, institutionalised for-profit brokers, thrive on the lack of state support, while in Norway similar mechanisms play out informally. Our study indicates how digital self-services reinforce administrative burdens for citizens, and that intermediaries can ease compliance, learning and psychological costs created by digital self-service procedures. Yet, we show that when welfare systems fail to provide adequate assistance to comply with its own bureaucracy, the responsibility for service access not only becomes blurred but also nurtures informal *and formal* structures, which can worsen the position of already vulnerable citizens, by making them depend on third parties to reach out for welfare rights they are entitled to. Besides the new forms of power asymmetries created, as the layers between citizens and the service grow, these dynamics also make citizens less in charge of their own service procedure, preventing their own voice from being acknowledged in the service procedure.

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