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The Regime of Self-Optimization: Lived Experiences of Enforced Digital Inclusion by Low-Literate Citizens

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Abstract

This article introduces the regime of self-optimization, a theoretical framework to understand how disadvantaged citizens are compelled to continually improve their digital skills and capacities to meet the demands of an increasingly digital welfare state. Consequently, we ask: How do low-literate Dutch citizens experience the regime of self-optimization in their everyday lives? Drawing on historical and discursive underpinnings of governmentality, responsibilization, and standardization, we propose a conceptual framework to examine how top-down digital norms impose moral and practical obligations for self-optimization. We distinguish two dimensions of self-optimization: a vertical and horizontal mode. The first emphasizes extrinsic norms, efficiency, and personal responsibility, effectively attributing digital exclusion to personal failure while overlooking more profound structural barriers. The latter centers around intrinsic motivations, social support structures, trust, and context-sensitive adaptation, thereby fostering inclusion and agency, although its effectiveness depends on social resources. Drawing on a longitudinal ethnographic study conducted in libraries, a community center, and a vocational school in the Netherlands (41 participant observations; 23 semi-structured interviews), our findings show how these competing dimensions collide in the everyday lives of low-literate Dutch citizens, revealing frictions that highlight broader socio-political tensions in digitized welfare systems. These tensions highlight how the mechanisms intended to foster digital inclusion, by encouraging citizens to optimize themselves, can instead reinforce marginalization. By centering the experiences of marginalized groups, researchers and policymakers can more effectively address socio-economic, linguistic, and cultural barriers to digital inclusion. This challenges the assumption that universalized digital inclusion initiatives are sufficient for all citizens. The regime of self-optimization, thus, provides insights for designing human-centered, context-sensitive digital inclusion interventions in rapidly digitizing societies.

1. Introduction

Societies worldwide are rapidly digitizing public services under the promise of greater efficiency, flexibility, and cost savings (European Union, 2024). In digitized welfare systems, this techno-solutionist logic can overshadow the complex ways digital infrastructures intersect with issues of inequality and sustainability (Ruiu & Ragnedda, 2024; Saikkonen & Ilmakunnas, 2024). Despite growing concerns about ever-expanding digital ecosystems, many national and supranational policies still endorse digital-first or digital-by-default models that ignore social-digital equity (European Union, 2024). For marginalized groups, such as low-literate adults, this approach can exacerbate existing socioeconomic vulnerabilities and lead to new forms of exclusion (Choroszewicz & Mäihäniemi, 2020; Goedhart et al., 2019). Instead of alleviating life circumstances, whether shaped by unemployment, low-literacy, or broader societal issues, digitized welfare systems can become mechanisms of inequality that require individuals to self-optimize, navigate complex interfaces, and adopt prescribed technological norms. This effectively shifts the burden of digital inclusion onto those least equipped to bear it (Goedhart, 2021; Helsper, 2021; Notley & Aziz, 2024). This is particularly true for disadvantaged or marginalized publics, for whom such individual self-optimization tends to be impossible due to socio-economic, linguistic, cultural, affective, and digital barriers (Buddeberg, 2019; Friemel et al., 2021). This article presents a conceptual framework for analyzing the lived experiences of top-down-imposed digital norms and assumptions through the lens of the regime of self-optimization.

To show the value of this conceptual framework, we analyze the case of low-literate citizens in the Netherlands, where despite a high level of digitalization almost one in six adults is considered to be low-literate, and one in four lack sufficient digital skills to safely participate in a digital society (Buisman et al., 2024; European Union, 2023). Consequently, a significant portion of the Dutch population faces fundamental linguistic and digital barriers to digital inclusion (Smit et al., 2024b). Meanwhile, little is known about how imposed digital inclusion is experienced from the perspective of these disadvantaged individuals with limited linguistic proficiency. Studying these experiences contributes to several persistent research gaps. First, while studies show that literacy is a foundational competence for participating in society (Carpentieri, 2015), there is still much unknown about the relationship between low literacy, low digital literacy, and how this affects digital inclusion and exclusion (Buddeberg, 2019; Grotlüschen et al., 2019). Although frameworks on the digital divide have made significant strides in highlighting disparities in access, skills, and outcomes (Helsper, 2021; van Deursen et al., 2017), they risk obscuring structural factors by treating individual development and improvement as the primary remedy to digital inequalities (Alper, 2017). Second, despite previous findings that literacy supporters (Buddeberg, 2019) and digital care workers (Kaun & Forsman, 2024) play a significant role in promoting digital inclusion, little is known about how social resources are enacted in the everyday lives of low-literate citizens to foster digital inclusion (Asmar et al., 2020). Third, self-optimization has received limited attention in digital inequality research (Nehring & Röcke, 2023) and even less attention concerning digital citizenship (Ceccarini, 2021). It is primarily described in relation to, for example, academic debates about the quantification of social life (Lupton, 2021) or self-help culture (Nehring, 2024).

Consequently, this study argues for a socio-political paradigm to understand self-optimization as a potential vehicle of marginalization. The term "regime" enables us to conceptualize self-optimization as "more or less stable socio-material assemblages that surface as coherent patterns of thinking and acting in the world" (Deleuze & Guattari, 1972/1977, p. 503). Thus, it enables us to highlight the top-down, hierarchical nature of development, sustainability, and inclusion, rooted in historical efforts to govern citizens through governmentality and responsibilization (Foucault, 1991; Juhila et al., 2021). Self-optimization is an assemblage of discourses and practices that encourage individuals to pursue the optimal, imaginable version of their identities, bodies, and citizenship in relation to their everyday lives (Nehring & Röcke, 2023). Moreover, this understanding highlights the material and discursive practices that shape knowledge, steer behavior, and impose normative logic. Examining how the regime of self-optimization unfolds in everyday practice reveals the frictions and resistances of marginalized groups, which they use to challenge and counteract its embedded strategies and norms. Rooted in neoliberal ideals of personal responsibility, autonomy, and self-reliance, the regime prioritizes standardized digital access and literacy frameworks, ultimately placing the responsibility of inclusion on those least equipped to bear it. Consequently, we ask: How do low-literate Dutch citizens experience the regime of self-optimization in their everyday lives?

Drawing on historical and discursive underpinnings of governmentality and responsibilization, we propose a theoretical framework to examine how top-down digital norms impose moral and practical obligations for self-optimization. Building on a longitudinal ethnographic study conducted in libraries, a community center, and a vocational school in the Netherlands (41 participant observations; 23 semi-structured interviews), we distinguish two dimensions of self-optimization: a vertical and horizontal mode. The first emphasizes extrinsic norms, efficiency, and personal responsibility, effectively attributing digital exclusion to personal failure while overlooking more profound structural barriers. The latter centers around intrinsic motivations, social support structures, trust, and context-sensitive adaptation, thereby fostering inclusion and agency, although its effectiveness depends on social resources. This study resonates with ongoing scholarly debates about digital inequalities and the digital divide, which often attribute individuals' responsibility for overcoming digital barriers solely to them (Goedhart et al., 2022). In doing so, they divert attention from collective and policy-level imperatives to enhancing individual skills. Failing to do this exacerbates socio-digital vulnerability and simultaneously widens social and digital inequalities, as enforced digitization renders especially disadvantaged citizens vulnerable to exclusion and further social and digital inequalities. Hence, the regime of self-optimization enables scrutiny of how top-down imposed norms, values, and assumptions foster socio-digital inequalities and vulnerability by neglecting structural barriers and making low-literate Dutch citizens responsible for their digital inclusion and exclusion.

2. The Regime of Self-Optimization

Based on neoliberal ideals of responsibilization and self-management (Juhila et al., 2021), and the underpinnings of Foucault's (2008) governmentality theory, we introduce the theoretical framework of "the regime of self-optimization." This framework is developed to understand how disadvantaged citizens must continually improve their digital skills and capacities to meet the demands of an increasingly digital welfare state. The regime of self-optimization can be theoretically situated within neoliberal governance and digital welfare studies. Under neoliberal governmentality, state policies increasingly cultivate self-governing subjects, citizens who regulate and improve themselves to participate and meet institutional aspirations (Nehring & Röcke, 2023). The regime epitomizes this: It imposes extrinsic norms of digital competence and

shifts responsibility for inclusion onto the individual (Juhila et al., 2021). In a digital context, the "ideal" citizen is an active, self-reliant user of e-services, requiring minimal state intervention (Henman, 2010). In this sense, neoliberal rationality produces citizens as rational actors and "entrepreneurs of the self," whose moral worth is measured by their capacity for self-care and self-management (Nehring, 2024). Drawing from this theoretical perception, the regime of self-optimization advances digital welfare and digital inequality studies to show how enforced digital inclusion manifests as a regime for disadvantaged citizens to forcefully optimize their digital competencies and compliance with e-governmental systems (Henman, 2010; Nehring & Röcke, 2023). In doing so, the regime of self-optimization highlights how what might be framed as empowerment or digital inclusion can, in practice, become a mandate to legitimize exclusion and potentially become a vehicle of marginalization.

Self-optimization has become a pervasive cultural narrative, emphasizing continuous self-improvement across various domains, such as health, productivity, and social relationships (Nehring, 2024; Nehring & Röcke, 2023). It promotes the belief that individuals must refine and enhance their capacities to meet societal demands, often framed as personal responsibility or self-reliance (Juhila et al., 2021). This emphasis intersects with digital inclusion efforts, particularly for disadvantaged, low-literate citizens, who are increasingly expected to adapt to digital environments and acquire skills to navigate digitized public services (Notley & Aziz, 2024). The concept of self-optimization, therefore, provides a critical lens for examining the socio-political dimensions of digital citizenship.

The neoliberal focus on self-optimization related to class, ethnicity, gender, education, and income (Helsper, 2021). Digital policies often mirror these expectations by placing the burden of digital inclusion on individuals, particularly through the promotion of skills training or access to digital tools. However, such frameworks often overlook the socio-economic, cultural, and infrastructural disparities that hinder genuine inclusion. The "belabored self" (McGee, 2005) exemplifies this contradiction, as individuals are encouraged to embrace digital skills not as a pathway to empowerment but as a necessity to remain competitive and employable within a digitized economy (Nehring & Röcke, 2023). Moreover, self-optimization operates within a 'therapeutic culture' that commodifies self-improvement, framing digital inclusion as both a moral obligation and a gateway to modern citizenship (Illouz, 2007; Rimke, 2000). This narrative often depoliticizes digital inclusion and exclusion, presenting them as failures of individual effort rather than addressing systemic barriers, such as insufficient infrastructure or inaccessible digital platforms. By examining self-optimization as a socio-political construct, this framework connects digital inclusion with broader debates on individualization, responsibilization, and the shifting nature of self-identity under neoliberal capitalism (Beck, 2000; Giddens, 1991).

The institutional embrace of the regime of self-optimization as a universal ideal often obscures the deeper issues of social justice. In neoliberal discourse, civic obligations to be "productive" and "self-sufficient" reinforce power differentials, making it difficult for low-literate and low-digital-literacy citizens to acquire skills on their terms (Juhila et al., 2021). This lies at the basis of the regime of self-optimization, rooted in a logic of meritocracy. It delineates an apparent dichotomy between the economically and politically dominant "haves" and the disenfranchised "have-nots." This suggests that battling inequality and exclusion by the latter requires adopting the wealth accumulation strategies of the former (van Assche & Hornidge, 2015).

From a political-economic perspective, the self-optimization of the citizenry emphasizes individuality, autonomy, self-reliance, and active participation (Newman & Tonkens, 2011). This logic suggests that people can empower themselves and others, add value to society, and enhance their societal position by developing themselves via practices of self-management and self-optimization (De Brabander, 2014). According to neoliberal discourse rooted in Western ideas of "modernization," such a development logic entails an ideology centered on social change, where new ideas are introduced into a social system to produce higher per capita incomes and living standards through more modern production methods and improved social organization. This paradigm consequently emphasizes that the primary manner in which "vulnerable," "disadvantaged," and "underdeveloped" people can improve their standard of living is by following the steps of the ideology of the homo-economicus (Weber et al., 2006), centralizing active socio-economic participation in an individualized configuration rooted in meritocracy. Digitization fosters an additional layer of expectations and norms, as citizens must appropriate their capabilities and preferences to fit within the "digital mold" (Broersma et al., 2024). However, this neoliberal paradigm often overlooks critical social dimensions, including human rights, environmental sustainability, and community empowerment (Newman & Tonkens, 2011).

2.1. Neoliberal Discourse as Hegemonic Practice

Discourses centering on autonomy, self-reliance, resilience, empowerment, self-management, and similar concepts have become part of institutions' hegemonic practices (Weber et al., 2006). This hegemonic practice discursively construes implicit neoliberal norms, civic duties, values, and interests as universal, projecting civic normativity (Smit et al., 2024a). Underneath this practice lies a regime of self-optimization that frames inclusion, participation, and development as universal, unambiguous, and inherently positive. The strength of this ideal lies in its ability to be discursively framed as inherently positive for democracies, underpinned by a range of political and economic agendas. Simultaneously, citizens are held responsible for their successes and failures (Juhila et al., 2021), and the ability to appropriate this regime of self-optimization to personal conditions is considered in terms of vulnerability, capability, and (dis-)advantage. Thus, self-optimization relates to both online and offline contexts, as it entails how digital access and usage are operationalized in terms of capabilities and limitations. This logic promotes neoliberal ideals for digital inclusion by emphasizing individual responsibility and self-improvement. Citizens are expected to internalize these ideals, adapting to fit the organizational norms without questioning the underlying structures (van Assche & Hornidge, 2015). This logic does not accommodate personal circumstances or foster mutual understanding; instead, it perpetuates a system in which individuals must continually optimize themselves to meet institutional demands.

The key aspect within these power mechanisms is the demand that individuals take action themselves through self-management services and, to a certain extent, govern themselves on the premise of having access to information on what is legitimate and their rights. Such operational aspects in digital public sector practices draw upon the preference for agentic, ideologically constructed concepts, such as "self-reliance," "self-optimization," and "self-efficacy," reflecting active citizenship ideals.

Although often framed as empowering citizens, such ideologies paradoxically emerge from positions of dominance and privilege. We understand this discursive dynamic as "bureaucratese" (Watson, 1997). Bureaucratese operates through analogical reasoning, meaning it remains bounded by internal logic and the

constraints of institutional political discourse. According to Hummel (1994), bureaucratese represents a distinct institutional language that imposes ideological frameworks onto citizens. Contrasting bureaucratese with everyday societal communication, Hummel (1994) highlights that institutional language is inherently one-dimensional, enforcing conformity rather than enabling reciprocal dialogue.

Central to bureaucratese is the institutional context itself, rather than the lived experiences of citizens or the broader social environment (Hummel, 1994). This language imposes an idealized institutional form on real-world interactions, embedding neoliberal ideologies, such as self-optimization, into daily communication practices (Watson, 1997). Unlike ordinary communication, where meaning emerges through shared contexts and mutual experiences, bureaucratese enforces its predefined context. Consequently, citizens interacting with institutions must adapt to predetermined norms and expectations. In essence, bureaucratese communicates *at* citizens rather than engaging *with* them in dialogue (Watson, 1997).

Political discourse, expressed through bureaucratic language, functions as a tool for disseminating and reinforcing neoliberal ideologies. Consequently, it reproduces societal and digital norms that presuppose citizens possess adequate socio-economic capital for digital access, basic functional and digital literacies for practical use, and physical and cognitive abilities to articulate and overcome barriers encountered in digital media. Disadvantaged citizens often find their circumstances misaligned with one or more of these expectations, creating tensions between institutional norms and their actual daily practices and capabilities. This discrepancy highlights the neoliberal emphasis on self-optimization, fostering a techno-solutionist logic wherein citizens are expected to manage and resolve civic matters independently through digital technologies perceived as efficient, effective, and accessible (Schou & Pors, 2018).

2.2. The Self-Service Turn

While self-optimization is commonly associated with the quantified self (Lupton, 2021), this article adopts a political-economic perspective, defining how individuals enhance their abilities to access, utilize, and benefit from digital media. This concept aligns with neoliberal ideologies emphasizing self-management, self-service, and individual responsibility (Juhila et al., 2021). Under such frameworks, disadvantaged citizens are often positioned as personally accountable when they fail to meet digital expectations, for instance, when they struggle to access public services such as social housing or welfare through e-government platforms. Consequently, their inability to navigate these infrastructures results in further marginalization and exclusion (Goedhart, 2021; Smit et al., 2023).

Critically examining the principles underpinning the regime of self-optimization sheds light on its implications for digital inclusion and civic participation (Ceccarini, 2021). These principles outline the skills, knowledge, behaviors, and conditions necessary for digital inclusion, embedding assumptions about the competencies required of citizens in a digital-by-default society (Mensonides et al., 2024). Additionally, this framework highlights the crucial roles of confidence, trust, and articulatory power in shaping experiences of digital marginalization. It emphasizes how disadvantaged individuals bear responsibility for their digital and social inclusion, reinforcing self-optimization as both a personal mandate and structural expectation (Juhila et al., 2021).

While examining the regime of self-optimization is especially pertinent today, as key societal functions increasingly adopt digital-by-default approaches, this concept itself is not entirely new. In the 1990s, the shift towards self-service highlighted elements of responsibilization and self-optimization. Henman (2010) describes this transition as part of a neoliberal approach that merges cost efficiency with customer-oriented service, fundamentally altering the relationship between citizens and welfare services. Unlike traditional welfare states, which position individuals as passive recipients, the self-service model expects citizens to actively engage with welfare institutions independently, ensuring they secure the benefits to which they are entitled.

More recently, this self-service trend has expanded significantly through digitalization initiatives, digital education, and digital policy frameworks, laying the groundwork for contemporary understandings of self-optimization. Central to this development is the concept of responsibilization, which underscores the transactional relationship between individuals and the state. Current policy documents, such as the Dutch government's "digital agenda" (State Government of the Netherlands, 2024), explicitly reinforce these neoliberal values by expecting citizens to proactively seek assistance through institutional channels, such as libraries or government service points: Citizens "must take the initiative themselves to visit a service provider" (State Government of the Netherlands, 2024, p. 18). This requirement poses additional challenges for disadvantaged or digitally low-literate individuals, as it burdens them with the responsibility of improving their digital competencies and navigating complex digital infrastructures independently (Bovens et al., 2017).

To examine how individuals cope with these demands and limitations imposed by the self-optimization regime, we utilize the concept of self-efficacy (Maddux, 2016). Self-efficacy refers to an individual's confidence in their ability to handle various situations effectively. This is crucial for understanding how individuals perceive and navigate digital barriers related to their capabilities and limitations, such as digital access and literacy (Kappeler, 2024). Self-efficacy correlates closely with perceived competence (Ryan & Deci, 2000) and perceived behavioral control (Ajzen, 2020), both of which significantly influence an individual's digital engagement (Fathali & Okada, 2018). By applying self-efficacy as a lens, we can better comprehend the tensions arising from imposing self-optimization strategies on disadvantaged individuals and how they experience and reflect upon these socio-digital power dynamics concerning their practical needs and capabilities.

2.3. Making Citizens Do More

Research since the 1990s has addressed issues of autonomy, participation, and the digital divide (Norris, 2000; van Dijk, 2020). However, less attention has been given to how disadvantaged citizens experience and perceive the digitization of essential democratic processes tied to digital self-optimization, despite evidence that digital means often perpetuate existing social exclusions and inequalities (Helsper, 2021). Imposing digitalization on citizens through frameworks of self-optimization can exacerbate feelings of alienation among disadvantaged groups, thereby reinforcing socio-digital vulnerability and contributing to the formation of a digital underclass (Helsper & Reisdorf, 2017). Helsper and Reisdorf (2017) highlighted that social inequalities have intensified over time, increasingly concentrating digital exclusion within vulnerable groups such as the elderly, individuals with lower education, and isolated populations. This trend has a significant impact on institutional roles, transforming social workers into digital care workers (Kaun & Forsman, 2024), where efficiency-driven austerity measures increasingly overshadow traditional social

support systems (Ceccarini, 2021). While efficiency arguments frame digitalization as a mechanism to support citizens' transition into a digital-by-default society, in practice, it simultaneously accelerates inequality and marginalization.

In the Dutch context and comparable European democracies, policies are increasingly focused on automating public administration and digitizing public services to empower citizens to use self-service (Margetts & Dunleavy, 2013). Digital and functional literacies have thus become essential prerequisites for citizen participation, interaction with public administration, and access to essential services, such as social welfare, online banking, and tax services, all of which are becoming predominantly digital (European Union, 2023; Frau-Meigs et al., 2017; Smit et al., 2025). Recent Dutch regulations permit institutions to conduct interactions exclusively through digital means, without providing non-digital alternatives (State Government of the Netherlands, 2024).On the one hand, the Netherlands portrays itself as a welfare state built on the principle of meritocracy, promoting autonomy and individual development. This national identity suggests that every citizen has the freedom and opportunity to realize their ambitions (De Brabander, 2014). On the other hand, the Dutch government actively promotes neoliberal norms and values, such as individualization and personal responsibility (Ballin, 2021), particularly among disadvantaged groups, creating tension between institutional ideals and practical realities (Juhila et al., 2021).

For example, the Dutch digital inclusion policy frequently presumes that providing digital access and training citizens in digital literacy will naturally reduce digital inequalities and promote inclusion (Ballin, 2021). This perspective overlooks the heterogeneity among digitally excluded groups, ignoring their varying degrees of access, skills, and socio-affective capabilities (Goedhart et al., 2022; Leurs, 2016). Moreover, it overlooks the significant impact of individuals' social environments on their use of ICT (Friemel et al., 2021) and the crucial role that social support structures play in promoting digital inclusion (Smit et al., 2024b). Third-party support actors are seldom incorporated into mainstream conceptualizations of digital divides and inclusion (Smit et al., 2023). Therefore, the regime of self-optimization encompasses political strategies aimed at integrating diverse social groups under the principles of autonomy, empowerment, self-reliance, and personal responsibility; yet, it often overlooks the practical complexities of citizens' lived realities.

3. Methodology

To understand how low-literate Dutch citizens navigate literacy barriers and experience digital citizenship in everyday life, we applied a grounded theory-inspired approach (see Charmaz, 2021). We conducted weekly participant observations in three libraries, a vocational school for adult education, and a community center across the Netherlands. From March 2022 to October 2023, we observed 41 participants and conducted 23 follow-up semi-structured interviews. These venues, located in two regions with higher poverty rates affecting between 10% and 24% of the population (Centraal Bureau voor de Statistiek, 2024), offered digital literacy courses and technical support for digital devices.

By combining observations with interviews, we witnessed digital interactions as they occurred, while also gathering participants' reflections, thereby enhancing the richness and reliability of our findings. Participants were recruited through a combination of snowball sampling, where participants recommended others facing similar language and digital challenges, and purposive sampling, targeting low-literate citizens via educational staff, library workers, social service personnel, and community center volunteers who had previously assessed

the literacy levels of potential participants. Assessments of literacy were based on national benchmarks for both native (NT1) and non-native (NT2) Dutch speakers, using specific linguistic proficiency levels (A2 for NT2 and 1F for NT1) as inclusion criteria (Stichting Lezen en Schrijven, 2017). Generally, NT2 participants had higher educational achievements and digital literacy but lower Dutch language proficiency, whereas NT1 participants exhibited the opposite.

During participant observations, we engaged with 41 individuals aged between 31 and 73 years ($M = 54$, $SD = 5.2$), comprising 56% women and 44% men from 10 different nationalities. These settings enabled us to examine how low-literate adults navigate digital technologies on a daily basis. From this group, 23 individuals were interviewed to gain a deeper understanding of their experiences with digital inclusion and exclusion. Participants needed to be adults (18+) to be included in the sample. Due to the limited availability of interview participants, they ranged in age from 37 to 71 years ($M = 53$, $SD = 5.1$), with 61% female and 39% male, representing three nationalities.

Participants were selected through a combination of snowball sampling, where respondents referred us to others who were willing to discuss challenges in language competence and digital skills, and purposive sampling, where organizations, partners, and individuals directed us to low-literate adults. Low-literate citizens were identified with the help of educational practitioners, library staff, social workers, and community center volunteers, who were already familiar with the individuals' literacy levels through previous assessments. These evaluations utilized the national NT2 reference framework for non-native speakers and the official language proficiency levels for native Dutch speakers (NT1; see Stichting Lezen en Schrijven, 2017). We applied the same linguistic proficiency levels (A2 and 1F, respectively; see Stichting Lezen en Schrijven, 2017) as a criterion for participant inclusion.

Interviews, lasting approximately 45 minutes, were conducted in various locations and explored daily digital practices and media usage, focusing on how participants adapt their digital literacies amidst linguistic challenges. Topics included digital media habits, device and app preferences, usage frequency, and motivations. The interviews were audio-recorded, transcribed verbatim, and subjected to thematic analysis using Atlas.ti, following Clarke and Braun's (2017) iterative coding methodology. This process involved generating initial codes, re-examining transcripts for refined coding, and iterative re-coding to explore the contexts in which socio-digital dispositions were analyzed. Through this analytical process, we identified the horizontal and vertical dimensions of self-optimization and how our participants experienced them.

All data were anonymized to ensure privacy, and pseudonyms were used for any names cited in our findings. Informed consent was consistently obtained, although challenges arose with participants with limited reading and writing skills, particularly those who did not speak Dutch or English. In such cases, oral consent was carefully obtained, often using translation software to ensure clarity. The lead researcher introduced himself, explained his role, and outlined the study's focus to ensure participants were fully informed. Individuals who could not comprehend the research objectives or provide informed consent were excluded from the study. The research received ethical clearance from the Ethics Board of the University of Groningen (CETO) on 17 May 2023, under reference number 572–93593093.

4. Findings

The vertical dimension within the regime of self-optimization is characterized by extrinsic, top-down institutional demands prioritizing standardized norms of digital competence, digital access, and digital literacy over situated individual circumstances. On the contrary, the horizontal dimension reflects socially situated and context-driven learning processes facilitated by social support networks. Frictions arise when these dimensions with their differing norms and values collide in the everyday practices of disadvantaged citizens, undermining intrinsic motivations, needs, and rights, and exacerbating digital exclusion and inequality. The dynamics in both dimensions are examined through the lived experiences of our participants. This highlights the tensions between institutional demands and personal needs, providing a valuable conceptual framework for studying vernacular instances of digital inclusion and exclusion.

4.1. Vertical Self-Optimization

The vertical dimension of self-optimization is deeply rooted in top-down expectations that frame digital inclusion as a universal necessity based on the assumption of a homogeneous baseline of skills, resources, and access. The vertical mode is essentially an instantiation of the neoliberal citizenship ideal in the digital arena: Individuals must continuously upgrade their skills, devices, and literacies to remain included and not be seen as burdensome to the state (Schou & Pors, 2019). These assumptions create significant barriers for disadvantaged individuals, who, in practice, face complex interfaces and inaccessible processes. At the same time, implicit norms burden the individual with digital participation. Importantly, the vertical dimension builds on existing digital inclusion and governance paradigms by emphasizing standardization and efficiency.

By centering the regime's demands on conformity and compliance, individuals are expected to align their capabilities and behaviors with standardized norms, irrespective of their socioeconomic, linguistic, or emotional realities. This approach often fails to account for the systemic and structural barriers that prevent disadvantaged groups from meeting these expectations. As a result, those unable to conform or develop themselves in alignment with these demands face exclusion and disempowerment. The implications of this exclusion are profound, as individuals who cannot meet these imposed requirements are often excluded from participation, thereby exacerbating their marginalization. The neoliberal ideology driving this vertical dimension of the regime of self-optimization reinforces the belief that everyone must contribute to society, perpetuating a system where failure to comply equates to failure to contribute. This framing neglects the structural inequalities and systemic barriers that disadvantaged groups face, making digital inclusion a burden rather than an opportunity.

Barbara (57, F) illustrates how vertical self-optimization can exacerbate exclusion by shifting the burden of digital inclusion onto individuals without adequate support. Her social worker advised her to request a free laptop and attend digital literacy courses to manage e-governmental services independently:

> My social worker advised me to ask for a free laptop from the municipality and follow educational courses to become [digitally] literate enough to make use of those [e-governmental] services and arrange my affairs from my own home [the participant is partially disabled]. I didn't really want to do this, but I accepted his proposition because I thought it would make things easier. However, it made it way more difficult. Everything went fine when a social worker came by once a week and helped me

with those difficult digital things in person, and I also very much liked to talk with that person, as I'm not able to go outside much. Now I have to do it on my own, and if I need help, I need to call someone, which often makes things even more difficult.

This case highlights a key aspect of vertical self-optimization: the reliance on top-down directives prioritizing individual responsibility over tailored support. Barbara's limited mobility and lack of digital skills were not adequately considered, and the withdrawal of personal visits resulted in the loss of both practical assistance and meaningful social interaction. The institutional focus on cost-cutting measures and digital self-reliance imposed unrealistic expectations on Barbara, leading to dual exclusion: digitally, due to insufficient resources and education, and socially, as the reduced support further isolated her. Her experience highlights the limitations of vertical self-optimization in addressing structural barriers and individualized needs, ultimately reinforcing exclusion and inequality rather than fostering inclusion.

Carlos's (61, M) experience resembles Barbara's: In his case, structural and infrastructural spatial barriers contributed to the feeling of imposed digital inclusion and being a burden instead of an opportunity. Living in a rural area with unreliable internet connectivity, Carlos was unable to participate in online courses or access virtual communities. Unlike Barbara, whose burden stemmed from withdrawing personalized support, Carlos faced external barriers that rendered self-optimization impossible. These spatial challenges evoked feelings of helplessness and frustration, as Carlos lacked the agency to overcome the infrastructural limitations. His case highlights the systemic inequalities that are often overlooked when digital inclusion policies assume uniform access to and availability of resources.

In addition, Asaf's (43, M) experience echoes Barbara's and Carlos's perceptions in terms of emotional burden but differs in the specific affective consequences. Feeling coerced into acquiring digital skills for e-governmental services, Asaf struggled with the complexity of online courses and digital portals. While Asaf had access to the e-governmental services, he was unable to use them due to limited digital literacy, a lack of confidence in his capabilities, and fear that he would make a mistake. Hence, the enactment of e-governmental services is not solely determined by access or skills. His failure to meet institutional expectations led to shame, anxiety, and withdrawal from social participation. Unlike Barbara, whose burden was amplified by a lack of direct assistance, or Carlos, whose negative experience was affected by spatial issues, Asaf's challenges were compounded by internalizing his struggles as personal failures. This erosion of self-esteem and avoidance of further engagement illustrate how vertical self-optimization undermines self-efficacy and perpetuates exclusion.

In all three cases, institutional presuppositions of universal digital competence clashed with individual circumstances. Barbara's physical disability, Carlos's infrastructural limitations, and Asaf's low digital literacy were not accommodated, reflecting a failure to align policies with diverse user needs. Each case reveals the affective toll of enforced digital inclusion. Barbara experienced isolation from reduced social interaction, Carlos felt helpless due to spatial constraints, and Asaf internalized shame and frustration. These emotional responses underscore the limitations of policies that prioritize compliance over individual well-being.

Thus, the vertical dimension of the regime of self-optimization imposes rigid expectations on individuals, assuming they possess the necessary skills, devices, and agency to navigate increasingly digitized systems. This assumption systematically undermines the self-efficacy and agency of disadvantaged individuals,

creating a disconnect between institutional norms and personal realities. Bianca's (57, F) story exemplifies how this has a significant effect on participants' sense of competence:

> To register for a digital course, the municipality of [redacted] asked me to download a form from their website, fill in my personal information, and upload it. I tried it on my phone, but I couldn't open the file. I called the help desk, and the person advised me to open the file on a computer or access it through Gmail. However, I don't have a computer or a phone with Gmail. I did not tell this to the employee, as this isn't something I'm proud of. I just said thank you and hung up.

Ashamed to admit her limitations, Bianca ended the conversation by feigning gratitude, leaving the issue unresolved. Bianca's experience underscores how the vertical dimension reduces agency by framing failure to meet digital expectations as a personal inadequacy. Her inability to articulate her challenges reflects how the affective burden of shame inhibits participants from seeking further assistance. Rather than feeling empowered, Bianca's encounter left her feeling disengaged and unsupported, revealing the alienation caused by institutional frameworks that prioritize efficiency over empathy.

The internalization of struggles with imposed digitalization as personal failure harms citizens' self-esteem and contributes to a loss of trust in institutions, as seen in the case of Carla (53, F). Similar to Bianca, she felt the pressure of conforming to digital norms that she was ill-equipped to meet. For Carla, the vertical demands of self-optimization magnified her exclusion and created a psychological barrier to re-engaging with institutional systems. Hence, while the language of self-optimization may appear uplifting, it can mask systemic and affective barriers that disproportionately affect those already marginalized.

Feelings of shame are central to how vertical self-optimization undermines agency, as seen in Karim's (45, M) case, who was unable to navigate his child's school portal. This excluded him from participating in his child's education and amplified his sense of inadequacy as a parent. This highlights how the vertical dimension imposes normative expectations that individuals internalize, eroding their ability to challenge or negotiate these demands. This has profound consequences for affective dispositions, such as shame and distrust, fostering a sense of unbelonging and a lack of agency and control, which can potentially result in social exclusion.

Ella (63, F) experienced a similar loss of agency, as her inability to keep up with her friends' online interactions left her feeling isolated and guilty. Unlike Bianca, who faced direct material and systemic barriers, Ella's exclusion was relational, as her digital illiteracy severed her from social networks. Both cases illustrate the broader impact of vertical self-optimization, where systemic assumptions about digital competence lead to affective exclusion and a diminished sense of self-worth.

These examples collectively reveal how the vertical dimension of the regime of self-optimization disempowers individuals by imposing unrealistic expectations of independence and competence, where digital-by-default is the norm. The presumption of a homogenous baseline of digital skills and access ignores the structural and personal disparities marginalized groups face. For Bianca, Carla, Karim, and Ella, these expectations eroded their confidence, created feelings of inadequacy, and diminished their ability to assert agency within institutional systems. Addressing these issues requires a paradigm shift in digital inclusion policies, focusing on fostering self-efficacy and supporting diverse capabilities, rather than perpetuating a one-size-fits-all approach that marginalizes those unable to meet the regime's demands.

4.2. Horizontal Self-Optimization

By contrast, the horizontal dimension within the regime of self-optimization aligns with theoretical approaches that emphasize social context, collective support, and user-centric adaptation in digital inclusion (Goedhart, 2021). Rather than seeing the citizen as an isolated rational actor, the horizontal perspective sees them as embedded in a social fabric where learning and inclusion occur through relationships and trust. This resonates with socially situated understandings of learning and digital inclusion, for example, the notion that people learn more effectively in community-based practice contexts (Goedhart, 2021). The horizontal dimension builds on this by framing such peer or community support as an intrinsic mode of self-optimization: Individuals are motivated to improve their skills not just to meet an abstract standard, but to connect with others, to achieve personal goals, or to alleviate immediate fears (such as the fear of "feeling stupid" with technology) in a supportive environment.

Sylvia's (54, F) account illustrates how self-optimization in the horizontal dimension is deeply social and situated. She relies on her daughter's smartphone for essential digital interactions:

> I don't have any digital device, I'm afraid I'll do something wrong and lose my income or get scammed or something. Still, if I want to send a picture, call someone, or check the weather, I'll borrow my daughter's phone. First, she had to do all these things for me, but now that I've seen her do it hundreds of times, I know how to do it myself....But only the simple things. If you ask me to do those things with taxes or online banking, that's impossible for me to do by myself. I need my daughter or someone else for that.

Over time, Sylvia observed her daughter performing various tasks, gradually gaining the confidence to handle more complex functions independently. However, she continues to rely on her daughter for complex digital tasks, such as managing taxes or online banking. Sylvia's intrinsic motivation to learn emerges not from imposed institutional expectations but from the immediate practical needs she encounters in her daily life. Her dynamics of self-optimization reflect an interplay between her desire for independence and the safety net provided by her daughter's support. This highlights how horizontal self-optimization enables individuals to develop digital competencies at their own pace and within their context, fostering a sense of agency that acknowledges both their capabilities and limitations.

Safety and familiarity are essential for these social dynamics to foster a positive affective experience, as shown by Ellen (59, F):

> All the time I hear that I need to go to school or develop all these digital skills. But why? I like to have my sister beside me helping me out, and as far as I know, she likes it too. We view it as a social activity, a bonding experience. We laugh about the mistakes I make, and then she helps me. I never feel stupid in front of her when I don't know how to do something. However, when I go to a school or something and make a mistake, that is when I feel stupid, and that anxiety pops up again.

Ellen's experience further exemplifies the relational nature of horizontal self-optimization. Her sister's involvement in teaching her to use a smartphone transforms digital learning into a shared activity that strengthens their bond. Ellen values this collaborative process, which alleviates her anxiety about making mistakes and helps build her confidence. For Ellen, the presence of a trusted social resource enables her to

acquire the skills she needs to use applications like WhatsApp for social interaction. Her intrinsic motivation stems from her desire to connect with friends and family, not from external pressures. This alignment with her needs and preferences fosters a sense of self-efficacy, as Ellen feels capable of navigating digital tools within the safety of her social network. Her experience underscores how horizontal self-optimization prioritizes equity by tailoring digital participation to the individual's circumstances and leveraging social resources to mitigate affective barriers.

In contrast, Andre's story highlights the challenges faced when social support is insufficient or unavailable:

> People told me that having a smartphone was beneficial and easy. My neighbor even gave me one for free and showed me how to use it. Initially, I was able to open apps, use WhatsApp, and make calls. However, soon messages about the memory being full stopped me from updating or using it properly. Eventually, I couldn't even start it. I gave it back, saying, no thanks.

While his neighbor initially helped him learn basic smartphone functions, Andre struggled to maintain access independently. Messages about memory storage overwhelmed him, and without the vocabulary or confidence to articulate the issue, he returned the phone and disengaged entirely. Unlike Sylvia and Ellen, Andre lacked sustained social resources to guide him through these challenges, leading to a diminished sense of self-efficacy. His case illustrates the fragility of self-optimization when social support is limited or temporary. The absence of ongoing assistance and the lack of intrinsic motivation to prioritize digital tools contributed to his withdrawal from digital engagement. For Andre, the potential of the horizontal dimension remains unrealized because the social resources needed to foster sustained inclusion were insufficient.

Implicit norms of self-optimization, framing digital participation as inherently valuable, also shape the attitudes of individuals from disadvantaged backgrounds. Participants, such as Sylvia, questioned the utility of digital inclusion in their lives. Sylvia doubted whether owning a smartphone would enhance her sense of belonging, echoing Andre's sentiment. For both, the perceived value of digital access did not outweigh the economic and technological constraints required to sustain it. This reliance on informal social support structures fosters vulnerability. When such resources are unavailable, individuals face increased risks of exclusion.

Sylvia, who accessed digital tools through her daughter's phone, and Andre, who learned basic smartphone skills from his neighbor, illustrate adaptive forms of self-efficacy. Their experiences highlight how disadvantaged individuals creatively navigate digital barriers, leveraging their specific capabilities and limitations. These cases collectively highlight the central role of personal needs, motivations, and social contexts in the development of digital literacy. Consequently, policies and educational programs should focus on cultivating robust social infrastructures to support disadvantaged individuals. Digital inclusion efforts must move beyond mere access and usage, acknowledging the inherently relational and personalized aspects of self-optimization.

An apparent tension exists between institutional expectations of uniform digital competence (vertical dimension) and the personalized, socially driven methods disadvantaged citizens employ (horizontal dimension). Institutional frameworks typically hold individuals accountable to standardized digital requirements without sufficiently considering their limited resources, connectivity issues, or emotional and physical barriers. When these individuals struggle to meet these standards, they are often blamed for their

perceived shortcomings. In contrast, the horizontal dimension emphasizes reliance on social networks, where support from peers, family, and neighbors helps mitigate fear and shame associated with digital tasks. Despite their practical value, these collaborative, context-sensitive learning approaches are often undervalued by institutional systems that prioritize efficiency, cost-effectiveness, and measurable outcomes.

5. Discussion

The findings demonstrate that employing the regime of self-optimization as a theoretical framework effectively reveals the experiences of disadvantaged citizens within socio-digital infrastructures. This approach highlights the tensions arising from interactions between the vertical demands imposed by institutional structures and the horizontal, socially embedded practices employed by individuals. Such frictions often undermine the intrinsic motivations, needs, and rights of disadvantaged citizens, thereby intensifying digital exclusion and inequality. By closely examining the lived experiences of low-literate individuals, the framework offers nuanced insights into how digital exclusion is intertwined with e-government systems. Additionally, the results highlight how the meritocratic principles embedded in self-optimization narratives shift responsibility to individuals, exacerbating feelings of shame and vulnerability when expectations, such as adequate broadband coverage, user-friendly interfaces, and personalized guidance, are not met. Conversely, community support networks help mitigate these adverse effects, allowing digital tasks to be perceived as collective challenges rather than solitary burdens. This finding does not romanticize informal support, as such networks are often unstable; instead, it emphasizes that digital inclusion policies focused exclusively on vertical performance metrics risk perpetuating inequalities without sustained investment in horizontal support systems, such as care, translation, and mentoring.

The dual structure of the regime of self-optimization refines traditional governmentality theory (Foucault, 2008; Henman, 2010), which predominantly emphasizes the internalization of top-down power dynamics. By incorporating the horizontal dimension, the framework reveals that outcomes are not uniform and that individual agency and social interactions significantly mediate the effects of institutional power. This perspective addresses recent critiques in social theory and digital welfare studies, advocating for a more complex understanding of neoliberal governance beyond simplistic, one-dimensional representations (Nehring & Röcke, 2023; Schou & Pors, 2019).

This perspective aligns with recent discussions on the digital welfare state, emphasizing the ambivalence inherent in digitally transforming public service provision (Kaun & Forsman, 2024; Zakharova et al., 2024). While digital technologies promise to streamline welfare services by enhancing efficiency, personalizing care, and reducing bureaucratic burdens, these technologies simultaneously introduce new surveillance and control mechanisms (Kaun & Liminga, 2023; Zakharova et al., 2024). For example, Kaun and Forsman (2024) document how public librarians undertake digital care work, revealing hidden administrative responsibilities and gendered labor divisions embedded within digitalization processes.

Our framework critically examines this context, highlighting how digital welfare policies often impose self-regulation expectations ill-suited to the realities of disadvantaged citizens. Such individuals are frequently required to adopt self-management practices that presuppose a level of digital competence they lack, exacerbating exclusion and systemic vulnerabilities.

The vertical dimension of self-optimization translates traditional self-service expectations into digital contexts, framing compliance with digital norms as a civic obligation. According to this view, being a "good citizen" equates to digital capability and autonomy (Nehring & Röcke, 2023). Noncompliance, such as failing to submit online applications on time, is treated as a personal failure, reinforcing a moral discourse that blames disadvantaged citizens for their exclusion rather than addressing structural inequalities (Henman, 2010; Kaun & Forsman, 2024). Consequently, administrative systems promoting standardized digital interactions inadvertently marginalize citizens with diverse capabilities.

In contrast, the horizontal dimension emphasizes relational approaches characterized by empathy, community support, and context-specific learning. Participants reported greater comfort and confidence when developing digital skills alongside trusted individuals, such as friends or family, rather than in impersonal, standardized training environments. These relational methods align with self-efficacy principles, enhancing empowerment through tailored, individualized support. However, the effectiveness of such approaches depends significantly on the availability of reliable social networks. Recognizing this variability highlights the importance of institutional policies that actively facilitate community-driven interventions, rather than relegating them to secondary roles. Institutions can better support individuals' self-efficacy and achieve more equitable digital inclusion outcomes by formally integrating these horizontal strategies.

Our findings challenge the assumption that digital inclusion is universally advantageous and equally relevant to all. Many low-literate individuals perceive digital inclusion initiatives as burdensome, creating additional barriers rather than mitigating existing ones. Attributing digital marginalization to personal resistance unfairly places responsibility on individuals, neglecting broader structural, political, economic, and cultural factors that perpetuate digital inequality. This argument aligns with Riddell's (2009) critique of the "moral underclass" discourse, cautioning against attributing social problems solely to individual attitudes without considering external influences. Indeed, digital exclusion cannot be reduced solely to personal choice, as technological access, educational resources, and socioeconomic conditions have a profound impact on it. This resonates with humanistic and communitarian perspectives on digital inclusion, emphasizing bottom-up, context-sensitive solutions (Alper, 2017; Helsper, 2021).

This clash intensifies when the top-down expectations of universal digital literacy implicitly treat the horizontal modes of learning and support as deficient or transitional rather than recognizing them as vital, context-specific strategies for coping with digital demands. Disadvantaged individuals often rely on trusted family members or neighbors to navigate online forms, e-government portals, or other complex digital services. While such support networks foster confidence and reduce feelings of isolation, they starkly contrast institutional logics that valorize self-reliance and measure success primarily through standardized metrics.

Additionally, research indicates that social and digital vulnerabilities are unevenly experienced, influenced by cultural, legal, policy, and technological factors (Alper, 2017; Helsper, 2021; van Dijk, 2020). Disadvantaged individuals often struggle to fully leverage the potential benefits of digital technologies, thereby limiting their effectiveness as tools for achieving equity and inclusion (Goedhart, 2021). Access and basic digital skills alone do not guarantee meaningful participation; instead, they represent an initial step toward comprehensive engagement within digital societies (Ragnedda, 2020). Thus, this study refines the notion of self-optimization by illustrating how its outcomes depend critically on the interplay between institutional structures and the availability of social support.

The regime of self-optimization framework can be extended to other marginalized groups, such as elderly populations who often face pressure to adopt digital technologies ill-suited to their needs. Friemel et al. (2021) illustrate how digital inequalities among older adults involve intersecting challenges related to age, skills, and motivation. These can be seen as conflicts between institutional expectations (e.g., using online banking) and practical realities (e.g., relying on relatives for assistance). Thus, the assumption that self-optimization inherently reduces inequalities merits scrutiny. The framework effectively identifies the balance—or imbalance—between horizontal social support and vertical institutional pressures in various contexts.

6. Conclusion

This study investigated how disadvantaged, low-literate citizens experience enforced digital inclusion within a regime of self-optimization that frames digital participation as both a moral duty and a practical necessity. To explore the tensions between these citizens and the socio-technical policies embedded in the regime of self-optimization, we identified two dimensions that structure their experiences: a vertical and a horizontal mode. The vertical mode emphasizes individual responsibility and compliance with institutional norms, thus potentially reinforcing neoliberal assumptions and overlooking structural inequalities. In contrast, the horizontal mode emphasizes community support, empathy, and culturally sensitive approaches, factors often absent in mainstream digital inclusion policies. Thus, the horizontal dimension serves both as a complement to and a challenge for the vertical dimension, emphasizing the importance of socially supported and empathetic interventions.

By clearly defining these vertical and horizontal dimensions, the study bridges macro-level critiques of neoliberal governance with micro-level lived experiences. While traditional governmentality theory predominantly emphasizes top-down control (Foucault, 2008), our findings reveal that horizontal relationships can mediate, modify, and sometimes mitigate these power dynamics, contingent upon the availability and institutional recognition of supportive social networks. For policymakers, this indicates that sustainable digital inclusion requires not only promoting individual self-reliance but also actively incorporating collective learning and supportive community practices. Practically, this involves developing accessible digital interfaces, ensuring non-digital alternatives remain available, and providing institutional support for community-based digital training.

The regime of self-optimization thus bridges critical perspectives on digital governance and more constructive aspirations for digital empowerment. Its analytical structure effectively integrates macro-level policy critique and micro-level lived realities, enhancing our understanding of digital inclusion processes. By operationalizing abstract concepts into tangible, empirically grounded dimensions, this framework offers valuable insights into the complexities of digital inclusion, highlighting the interplay between institutional power (vertical) and everyday practice (horizontal). Our findings also reveal that standardized digital demands clash with the everyday realities of low-literate individuals who rely on social networks to navigate technology, confront affective challenges, and mitigate shame or anxiety. This tension highlights how the very mechanisms intended to foster inclusion, by urging citizens to "optimize" themselves, can reinforce marginalization when structural supports are inadequate. We argue that recognizing and engaging with these experiences is crucial for designing equitable digital policies.

Although the regime of self-optimization was formulated based on research with low-literate adults in the Netherlands, its relevance extends far beyond this specific case. The framework addresses phenomena that are common across many countries and diverse populations in an era of digital transformation of public services. Many advanced welfare states are undergoing a similar shift toward digital-by-default governance, as seen in the Netherlands. The European Union's Digital Economy and Society Index (DESI) and national digital strategies consistently push for more online services and citizen e-participation. This suggests that vertical-horizontal tension is not unique to a country's bureaucratic culture, but rather a general feature of digitizing welfare systems. Researchers and policymakers in other countries can apply the regime of self-optimization as a lens to examine their digital inclusion challenges. For instance, one might investigate whether strong social safety nets and community programs (horizontal strengths) mitigate the pressures of digital-by-default (vertical demands) better than in other places.

The study's scope is necessarily bounded. It centers on a purposive sample of low-literate adults in the Netherlands; other welfare regimes, linguistic contexts, or demographic groups may display divergent constellations of vertical pressure and horizontal support. Nor does the analysis account in depth for intersecting factors such as disability, migration status, or racialization, which could compound or reshape digital vulnerability. Longitudinal data would also be required to gauge whether shifts toward participatory co-design or simplified bureaucratic procedures translate into enduring improvements in self-efficacy and inclusion.

Future work can address these limitations by applying the vertical-horizontal schema in comparative settings, examining its relevance for other marginalized constituencies, and testing interventions that combine accessible design with durable social support. Such research will refine understanding of how digital power operates and, crucially, how it might be redirected.

Addressing digital inclusion and exclusion from the perspective of disadvantaged, low-literate Dutch citizens necessitates a critical reevaluation of existing policy frameworks, educational methods, and local support systems. Central to this approach is developing inclusive policies that validate informal and community-based learning methods, rather than viewing them merely as transitional steps towards institutional compliance (Goedhart et al., 2019). Equally crucial is the provision of continuous, context-sensitive support through accessible digital tools, simplified interfaces, and supportive environments that enable individuals to develop digital skills without fear of judgment. Community-oriented and peer-learning strategies involving families, friends, or neighborhood organizations should be systematically integrated into formal educational programs. These practices help bridge the gap between institutional expectations and the realities of daily life experienced by disadvantaged groups. Additionally, it is vital to establish robust channels for dialogue and feedback between disadvantaged citizens and policymakers, ensuring that lived experiences, emotional well-being, and localized digital practices inform inclusive digital policy-making. Prioritizing these areas can effectively mitigate tensions between vertical institutional requirements and horizontal social support mechanisms, fostering a self-optimization regime that genuinely empowers individuals rather than marginalizing them.

Conflict of Interests

The authors declare no conflict of interests.

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