

DOI: <https://doi.org/10.63332/joph.v5i10.3521>

Digital Transformation in Welfare Provision: The Case of Indonesia's Jamsostek-Mobile Platform

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Abstract

Digital transformation has profoundly reshaped the governance and delivery of welfare services worldwide. In Indonesia, this shift is exemplified by the Jamsostek Mobile (JMO) application developed by BPJS Ketenagakerjaan, a state-run platform integrating employment-related social protection services. This article analyzes JMO as a case study of digital transformation in welfare provision, highlighting how user experience (UX) emerges as a critical infrastructure in mediating access, trust, inclusion, and democratic legitimacy. Through mixed-methods research—surveys (n=486), usability tests, and qualitative interviews—the study unpacks the cognitive, emotional, and institutional dimensions of platform-based welfare delivery. We argue that UX in digital welfare systems should be reframed as a public good and infrastructural element, not a secondary technical feature. This reconceptualization is necessary to ensure equitable access, reduce digital stratification, and promote transparent, empathetic, and citizen-centered welfare governance in an increasingly platformized state.

Keywords: Welfare Provision, User Experiences, Jamsostek Mobile, BPJS Ketenagakerjaan, Employment Protection.

Introduction

In recent years, welfare provision has undergone a major transformation driven by the adoption of digital technologies. Around the world, states are increasingly turning to digital platforms to administer public benefits, manage citizen data, and streamline bureaucratic processes. This shift marks not merely a change in the tools of governance, but a fundamental restructuring of the

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relationship between governments and citizens. As digital systems replace face-to-face encounters, the user interface becomes the primary site of interaction between the state and its people. The platformization of welfare—defined as the migration of social protection systems into modular, software-driven environments—introduces both unprecedented opportunities and significant risks. While these platforms promise greater efficiency, accessibility, and responsiveness, they also raise critical questions about inclusion, trust, and democratic accountability.

In the Indonesian context, the Jamsostek Mobile (JMO) application developed by BPJS Ketenagakerjaan—an authorized government body—stands as a flagship example of this digital transition. Designed as a mobile interface for employment-related social insurance programs, JMO consolidates multiple welfare functions, including old-age savings, job loss benefits, balance checks, claim submissions, and even access to investment and financial planning features. As a public digital infrastructure, JMO aims to reach millions of workers across Indonesia’s diverse socio-economic and geographic landscape. Its design reflects a broader ambition to modernize welfare delivery, align with global e-government standards, and expand digital inclusion. However, as this article argues, the success of such a platform cannot be judged solely by its technical features or download statistics. Instead, the user experience (UX) of digital welfare platforms must be understood as a central element of statecraft—one that mediates entitlements, shapes perceptions of legitimacy, and determines who is effectively included or excluded from the digital state.

Digital transformation in the welfare sector is not a neutral process. It is shaped by political, institutional, and technological forces that embed specific values and assumptions into the platforms themselves (Cordella and Paletti 2019). The shift from analog to digital interfaces restructures not only how services are delivered but also how citizens are expected to behave, interact, and navigate public institutions. In this new paradigm, citizens must possess a certain level of digital literacy, cognitive flexibility, and emotional resilience to successfully access their rights. As a result, those with limited educational attainment, older adults, rural populations, and informal sector workers are at heightened risk of digital exclusion—despite being among the primary intended beneficiaries of welfare systems (Eubanks 2017). This paradox challenges the technocratic optimism that often accompanies digitalization efforts and underscores the need for a more critical, citizen-centered approach to digital transformation.

One of the key arguments of this article is that user experience in digital welfare systems constitutes a form of “relational infrastructure”—a concept that positions interface design as a conduit for expressing institutional care, accountability, and belonging (Zuckerman 2020). UX is not merely about aesthetics or ease of use; it is about how the state makes itself knowable, accessible, and trustworthy to its citizens through digital means. In settings like Indonesia, where public trust is uneven and institutional opacity is a longstanding issue, UX becomes a vital mechanism for rebuilding legitimacy. Poor design, confusing workflows, or error-prone systems can inadvertently reinforce feelings of marginalization and deepen the emotional burden of claiming entitlements. Conversely, empathetic design, transparency features, and user-centered onboarding can foster a sense of recognition and confidence in state institutions (Guo 2022; Francis 2025).

The rise of platform governance in welfare provision further complicates these dynamics. As Veale and Brass (2019) conceptualized “administration by algorithm” indicates a shift in the logic of public administration from hierarchical control to algorithmic service ecosystems. This transformation, while potentially increasing flexibility and innovation, also risks turning the state into a fragmented assemblage of microservices where coherence and accountability are difficult to maintain. In Indonesia’s JMO, this manifests as a “super app” approach that bundles core welfare services with optional add-ons such as e-wallets and job portals. While such integration may appeal to digital-native users, it also introduces challenges in terms of UX consistency, navigational logic, and feature overload (Lucas Jr. and Lopes 2024). Without deliberate design strategies, this model can alienate users and reproduce institutional silos within the digital interface itself.

Crucially, digital welfare platforms also operate within an affective economy of trust and emotion. As scholars have noted, the legitimacy of the digital state is increasingly mediated through the emotional experiences of users (Guo 2022). Anxiety, confusion, or frustration during app use are not merely individual reactions; they are political events that signal breakdowns in the state’s communicative and ethical responsibilities. The fear of making errors, losing benefits, or failing to understand eligibility criteria can deter engagement and create emotional barriers to inclusion. These phenomena highlight the importance of affective UX—design elements that convey empathy, clarity, and reassurance through tone, language, and visual layout (Costanza-Chock 2021). In a welfare context, where users interact with platforms to claim life-sustaining benefits rather than entertainment or convenience, the stakes of emotional design are particularly high.

The article also draws attention to the issue of cognitive justice in digital welfare systems. The interaction design must account for the mental workload imposed on users. Complex workflows, ambiguous icons, and lack of contextual explanations increase what is known as “interaction cost,” disproportionately affecting those with limited digital skills (Wirtz and Müller 2019; Costanza-Chock 2021). In welfare platforms, these costs are not trivial—they can result in delayed claims, missed entitlements, and ultimately material harm. Addressing cognitive barriers through simplified language, progressive disclosure, guided navigation, and multimodal access becomes not just a usability concern, but an ethical obligation of the digital welfare state (Tan and Crompvoets 2023; Force 2023). Moreover, the algorithmic and automated nature of many digital welfare systems raises new concerns about transparency and accountability. When eligibility is determined through backend rules or automated logic, users must be able to understand, question, and appeal such decisions. Scholars like Veale & Brass (2019) and Doshi-Velez & Kim (2017) argue for the development of explainable systems that offer insight into how outcomes are calculated and what users can do in response. In the case of JMO, many users reported confusion over benefit calculations and a lack of clarity regarding next steps after application submission. Embedding transparency at the interface level—through features like “Why am I seeing this?”, “How was this calculated?”, or “Appeal this decision”—is essential for upholding procedural fairness and digital rights.

Finally, this article contends that digital transformation in welfare provision must be approached as a co-creative and participatory process. All too often, digital platforms are developed by vendors or central agencies without meaningful engagement from the communities they intend

to serve. This results in a “usability monoculture” that designs for an idealized user: urban, literate, formally employed, and digitally fluent. In reality, public service users are diverse, and design must reflect that diversity. Participatory design methodologies—such as co-design workshops, inclusive usability testing, and embedded feedback loops—are crucial for creating platforms that resonate with real-world needs and reduce unintentional exclusion (Costanza-Chock 2021).

In sum, this article situates Indonesia’s JMO application within a broader framework of digital welfare transformation. It argues that UX is not a peripheral design concern but a central infrastructure of inclusion, entitlement, and democratic legitimacy. Drawing on a mixed-methods study involving surveys, usability tests, and qualitative interviews, the article explores how users interact with JMO, what barriers they face, and how design mediates their relationship with the state. The findings reveal that while digital platforms offer new efficiencies, they also introduce new inequalities—particularly for those at the margins of the digital ecosystem. To address these challenges, the article proposes a shift toward UX-centered digital governance: a model that prioritizes emotional inclusion, cognitive justice, transparency, and participatory design as foundations for a more equitable welfare state in the digital age.

Methodology

This study adopts a mixed-methods research design to evaluate the digital transformation of welfare provision through the lens of user experience (UX), with a focus on Indonesia’s Jamsostek Mobile (JMO) application. By combining quantitative and qualitative methods, the research aims to capture the multidimensional character of UX as relational, cognitive, affective, and structural infrastructure in the platformization of welfare. The mixed-methods approach reflects the recognition that UX is not reducible to either technical performance metrics or user satisfaction scores, but is best understood as an assemblage of interface behaviors, perceptions, emotions, and socio-political interpretations (Costanza-Chock 2021).

The study is grounded in the convergent parallel design (Creswell & Plano Clark, 2018), wherein both quantitative and qualitative data are collected concurrently, analyzed separately, and then integrated for interpretation. This design ensures that empirical findings are triangulated across methods, allowing us to link statistical trends with lived experiences and interface observations. The convergent design is particularly appropriate in public sector UX evaluation, where subjective perceptions often diverge from observed behaviors and where usability barriers may be invisible in survey data alone.

The first component of the study involved a structured user perception survey, administered to a purposive sample of 486 active JMO users. The sample was stratified across five regional clusters—Sumatra, Java-Bali, Kalimantan, Sulawesi, and Eastern Indonesia—to capture geographic and infrastructural variation. In addition to regional representation, stratification was performed across gender, age, educational attainment, and employment sector (formal/informal), ensuring the inclusion of demographically diverse perspectives.

The survey was distributed both online (via Google Forms and BPJS Ketenagakerjaan channels) and offline (through local service centers in low-connectivity regions), allowing access for

digitally disadvantaged groups. The questionnaire included Likert-scale items, multiple choice questions, and basic demographic indicators. Key dimensions assessed in the survey were: (1) awareness and trust in BPJS programs; (2) usage frequency and types of features accessed in the JMO app; (3) perceived clarity and usefulness of key app features; (4) ease of navigation and layout appeal; and (5) overall user satisfaction. Survey responses were analyzed using descriptive statistics and cross-tabulation techniques. Frequency distributions revealed general trends in user behavior and satisfaction, while comparative analyses allowed disaggregation by education, age, and employment type. The results were interpreted using UX theory and public sector digital inclusion frameworks (Wirtz & Müller, 2019; Eubanks, 2018), identifying both access gaps and indicators of cognitive or emotional friction.

To complement self-reported data, a second component involved structured usability testing with 16 participants selected for diversity in age, education, digital literacy, and employment status. Usability tests are critical in UX research because they allow for direct observation of user behavior, often revealing breakdowns in interaction design that users may not be able to articulate (Norman, 2013; Nielsen, 2005). Participants were asked to complete four core tasks within the JMO app, namely (1) Register a new account or log in; (2) Check their JHT (Old Age Security) balance; (3) Access contribution and payment history; dan (4) Use one value-added feature (e.g., investment simulation or entertainment streaming). Each session was recorded using screen-capture and interaction-logging software. Observers tracked metrics such as task completion time, number of clicks, misclicks, navigation errors, backtracks, and pauses. Additionally, participants were asked to think aloud during the test—verbalizing their thought process, decisions, and confusions in real time. This "think-aloud protocol" was transcribed and analyzed for cognitive and emotional cues (Cordella and Paletti 2019). Evaluation of usability tests followed Jakob Nielsen's (1994) heuristics, focusing on key dimensions such as visibility of system status, match between system and user expectations, user control and freedom, consistency, error prevention, and minimalist design. The resulting data provided a fine-grained map of interaction costs, friction points, and design mismatches—particularly in navigating multi-step processes or third-party integrations within the app.

The third component consisted of three focus group discussions (FGDs) and five semi-structured interviews, involving a total of 28 participants. This qualitative phase was essential to uncover emotional and interpretive dimensions of UX that are not easily captured through surveys or behavioral data. Participants included urban and rural residents, formal and informal sector workers, older adults, first-time users, and frequent users. Recruitment ensured representation from both Java-centric and peripheral regions, reflecting Indonesia's digital inequality landscape. Discussions were organized around three themes, namely (1) Perceptions of JMO's utility and trustworthiness; (2) Emotional experiences in navigating the app; and (3) Aspirations and suggestions for improved usability. Thematic analysis (Braun and Clarke 2006) was used to code transcripts, combining deductive coding based on our conceptual framework (trust, friction, cognitive load, emotional safety) with inductive coding for emergent themes (dependency on family for navigation, fear of making mistakes, perceptions of digital modernity). This interpretive layer added depth to our understanding of how users emotionally relate to digital welfare infrastructure.

Notably, several participants described feelings of pride and legitimacy when successfully using

the app, while others shared anxiety about potential mistakes that could jeopardize their benefits. Older and informal workers often relied on younger relatives or HR departments for assistance, signaling the persistence of “digital intermediation” even in ostensibly self-service platforms. These narratives underscore that UX is not merely a function of interface quality, but also of trust, dependency, and the social ecology of technology use (Costanza-Chock 2021).

To contextualize the findings, the study also included a comparative benchmarking analysis of UX across digital platforms. JMO was compared with Indonesia’s Livin’ by Mandiri (a banking super app), Australia’s MyGov, and South Korea’s NPS (National Pension Service) platform. These comparisons focused on interface structure, coherence, error handling, personalization, and task flow. Benchmarking allowed us to evaluate JMO’s design maturity and identify best practices, such as progressive onboarding, modular visual grouping, contextual help icons, and clear status feedback. It also highlighted gaps, including fragmented feature integration and inconsistent interface language, which hinder users’ perception of JMO as a cohesive super app (Lucas Jr. and Lopes 2024).

All participants provided informed consent, and their data were anonymized and stored securely. There were no conflicts of interest, and the research was conducted independently from BPJS Ketenagakerjaan. Ethical approval was obtained in line with institutional standards for human subjects research. Nonetheless, the study faced several limitations. First, the survey may overrepresent digitally literate users due to online distribution bias. Second, usability testing was limited to a small sample due to resource intensity. Third, while efforts were made to ensure regional diversity, logistical constraints limited participation from remote rural areas. These limitations are mitigated by the triangulated design and cross-method validation.

Digital Transformation in Welfare Provision: A UX-Centered Theoretical Reframing

The digital transformation of welfare provision marks a paradigmatic shift in how states conceptualize and deliver social protection. Moving beyond the modernization of bureaucratic processes, digital transformation redefines welfare governance through the logic of platforms, interfaces, and data-driven decision-making. At the core of this transformation lies not only the adoption of new technologies but the restructuring of institutional relationships between the state and its citizens. Platforms such as Indonesia’s Jamsostek Mobile (JMO) application illustrate how welfare delivery is being remade through digital infrastructures that are both technical systems and political artifacts.

The emergence of digital platforms in public administration has been widely theorized through the lens of algorithmic governance (Veale and Brass 2019) and digital citizens (Isin and Ruppert 2015). Nowadays, public services are no longer confined to closed, hierarchical systems but are reconceived as modular, interoperable components accessible through digital interfaces. These interfaces are not passive tools but active mediators of rights, identity, and institutional legitimacy (Cordella and Paletti 2019). For example, platforms such as MyGov (Australia), GOV.UK Verify (UK), and Estonia’s MyData represent efforts to consolidate government services into seamless, user-friendly portals. Indonesia’s JMO reflects a similar ambition: to unify employment-related welfare functions, enable real-time access, and create a comprehensive digital welfare ecosystem. However, as digital transformation proceeds, it becomes clear that

platforms do not merely enhance service efficiency—they reshape the very logic of welfare governance. The transition from analog to digital is not neutral; it entails profound shifts in how eligibility is determined, how benefits are claimed, and how users experience their relationship with the state. The digitization of welfare can promote inclusion and responsiveness, but it can also intensify inequalities, particularly for those lacking digital literacy or access (Eubanks 2017). The design and governance of digital platforms embed institutional values and biases, which can marginalize already vulnerable populations if not deliberately addressed.

To understand these dynamics, it is essential to move beyond a narrow focus on technology and adopt a broader conceptual framework. This article advances such a framework by treating user experience (UX) in digital welfare systems as relational, cognitive, affective, and institutional infrastructure. Rather than conceptualizing UX as an isolated design feature, we argue that it constitutes a core element of the state's digital capacity to enact inclusion, legitimacy, and citizenship. This section develops four interrelated theoretical pillars, namely (1) UX as relational infrastructure, (2) cognitive load and interaction cost, (3) affective design and emotional inclusion, and (4) platform governance and digital citizenship.

The first pillar of UX emphasize usability, functionality, and user satisfaction, drawing from fields such as human-computer interaction (HCI) and product design (Nielsen 1994). These models typically focus on commercial applications, where UX is often geared toward maximizing user retention or conversion rates. However, in the context of public welfare platforms, the stakes are markedly different. Citizens engage with these systems not for leisure or consumption, but to claim entitlements, assert their rights, and negotiate their inclusion in state institutions. As such, UX in this domain must be rethought as relational infrastructure—a channel through which the state performs its obligations and citizens experience their membership in the polity. Tan and Cromptvoets (2023) conceptualizes digital platforms as “civic infrastructures” that do more than deliver services—they construct institutional presence and legitimacy. From this perspective, JMO is not merely a mobile app but a digital manifestation of the Indonesian welfare state. The structure of the interface, the clarity of the instructions, and the responsiveness of the system all signal how the state values its citizens. Design thus becomes a form of governance. When interfaces are confusing or unresponsive, they communicate neglect or indifference. Conversely, clear and empathetic design signals recognition, respect, and institutional care. Relational UX is particularly vital in settings marked by historical bureaucratic opacity or public mistrust. In such contexts, the digital platform can either rebuild trust or exacerbate alienation. For this reason, UX must be treated not as an afterthought but as a core component of public infrastructure—akin to roads, schools, or public health systems (Force 2023; Hartson and Pyla 2025).

The second pillar of the framework addresses the cognitive dimension of UX, particularly the concept of interaction cost. Interaction cost refers to the mental and temporal effort required to complete a task on a digital interface. This includes navigating menus, interpreting terminology, recalling passwords, understanding instructions, and recovering from errors. In private-sector applications, high interaction costs may lead to user drop-off or frustration (Hartson and Pyla 2025). In welfare platforms, however, these costs can result in missed deadlines, lost benefits, or exclusion from life-sustaining programs. Effective public platforms should minimize interaction cost through intuitive layouts, progressive disclosure, step-by-step guidance, and simplified

language. In the case of JMO, usability testing revealed multiple instances of high cognitive load, particularly in complex tasks such as document uploads or navigating between modules. Many users reported confusion about eligibility rules or terminology related to investment features. These findings illustrate that cognitive justice—ensuring that users of all backgrounds can comprehend and operate digital systems—must be a guiding principle of UX in welfare platforms.

While cognitive usability is crucial, UX in public platforms also operates within an emotional economy. Citizens' feelings—confidence, frustration, anxiety, or reassurance—are shaped by their interaction with the platform and, by extension, with the state. Scholars such as Guo (2022) argue that affective trust is as important as structural reliability in shaping perceptions of government legitimacy. A system that functions technically well but feels cold, alienating, or confusing can still erode trust and discourage engagement. The emotional labor required to use welfare platforms is often overlooked. Qualitative studies show that users experience fear of making mistakes, uncertainty about procedures, and anxiety over losing entitlements. These emotions are not peripheral—they are integral to how citizens evaluate the fairness and responsiveness of public institutions. Costanza-Chock (2021) emphasize the integration of emotional inclusion in digital design. This means crafting interfaces that are welcoming, forgiving of errors, and attentive to users' affective needs. Design choices such as progress indicators, friendly language, feedback messages, and contextual prompts can significantly reduce user anxiety. For example, instead of generic error alerts like “Something went wrong,” platforms should provide actionable and empathetic messages such as “We couldn't find your file. Please check the format or try again.” These micro-interactions shape the emotional texture of the digital state and determine whether citizens feel empowered or alienated in their engagement with welfare services.

The fourth and final pillar situates UX within broader debates on platform governance and digital citizenship. As states adopt platforms to manage welfare provision, the logic of administrative decision-making becomes increasingly automated, algorithmic, and opaque. This transformation raises critical concerns about transparency, explainability, and user rights (Veale and Brass 2019). When digital systems adjudicate eligibility or benefits without clear explanations, citizens are denied the ability to understand, contest, or appeal decisions—thereby flattening their role to that of passive recipients rather than active participants. In their work on algorithmic accountability, Doshi-Velez and Kim (2017) advocate for explainable interfaces that inform users why decisions were made and how they can respond. These principles are especially important in digital welfare, where backend systems may implement eligibility rules or verification checks without disclosing the rationale. In JMO, for instance, many users reported a lack of clarity about how benefit amounts were calculated or what steps followed a claim submission. Embedding explainability into the UX—through FAQs, tooltips, and “why you're seeing this” features—is essential for maintaining procedural fairness. Moreover, the structure of platform governance affects the coherence and legibility of the user experience. When platforms like JMO attempt to become “super apps” by integrating multiple services—welfare, finance, job matching, etc.—the risk of experiential fragmentation increases. Without unified branding, federated login systems, and consistent navigation, users may perceive each module as a separate entity, leading to confusion and loss of trust.

The above integrated framework—relational infrastructure, cognitive justice, affective design, and platform accountability—offers a comprehensive lens for evaluating UX in digital welfare systems. It foregrounds the normative and political dimensions of interface design and positions UX not as an optional add-on, but as a foundation for inclusive, democratic welfare governance in the digital age

UX as Lived Interface in Digital Welfare Practice

This section presents the empirical findings from our multi-method investigation of the Jamsostek Mobile (JMO) application as a key instrument in Indonesia's welfare digital transformation. By triangulating quantitative survey data, usability testing, and qualitative interviews and focus groups, we offer a layered analysis of how UX shapes, enables, and constrains access to welfare entitlements. The findings are organized around five interrelated themes, namely (1) the paradox of satisfaction and friction; (2) cognitive overload and interaction cost; (3) emotional responses and affective trust; (4) experiential fragmentation and the limits of super-app design; and (5) differentiated digital inclusion and structural inequality.

Survey data indicate a high level of general satisfaction with the JMO application. Over 94% of respondents rated the platform as “useful” or “very useful,” and 96.7% found the layout “clear and pleasant.” Users appreciated features such as balance inquiries, access to personal data, and the ability to check benefit eligibility in real time. These numbers suggest a successful digital rollout—at least on the surface. However, when triangulated with findings from usability testing and qualitative interviews, a more complex picture emerges. Despite high satisfaction ratings, users encountered numerous friction points in real-time navigation. For example, more than 60% of usability test participants misclicked or followed incorrect pathways while attempting to submit claims or explore non-core features such as investment simulations or streaming services. Average completion times for seemingly basic tasks (e.g., uploading documents) exceeded five minutes and involved multiple backtracks or failed attempts.

This “UX paradox” echoes what Wirtz and Müller (2019) identify as the gap between perceived satisfaction and actual usability in digital public services. In many cases, user satisfaction is mediated by trust in the institution or low expectations rather than interface quality (Guo 2022). In the case of JMO, users expressed appreciation for being able to access their benefits at all, even if the pathway was confusing. This suggests that satisfaction metrics alone are insufficient and must be supplemented with observational and qualitative data to uncover hidden UX frictions. One of the most striking findings from the usability testing was the high cognitive load required to perform several tasks within JMO. Interaction cost—defined as the mental and temporal effort needed to navigate a digital interface (Sundar et al. 2014)—was particularly high for multi-step processes like accessing contribution history or uploading documents. For instance, task completion for uploading supporting documents during a claim process involved an average of 12 clicks, three modal pop-ups, and frequent ambiguity regarding file types or sizes. Participants with lower educational backgrounds or limited digital literacy were disproportionately affected. This aligns with Eubanks' (2017) observation that automation in welfare systems can inadvertently penalize those with less access to the cognitive and technological resources required to comply. From a cognitive psychology perspective, the failure to reduce users' memory demands or provide contextual cues increases the risk of error and

abandonment(Braun and Clarke 2006).

Our qualitative interviews further illuminate this dynamic. Several users noted they had to “memorize the steps” for routine actions or “write them down,” especially when the task was performed only once every few months. Others reported giving up on accessing features altogether, stating “If I make a mistake, I don’t know if my money will be lost. Better I don’t touch it.” These findings demonstrate the need for cognitive offloading tools such as clear step-by-step guides, progressive disclosure (e.g., showing only one step at a time), contextual tooltips, and redundant confirmations for high-stakes actions. Without such features, digital welfare platforms risk becoming exclusionary by design.

Beyond technical interaction, users’ emotional responses to JMO reveal an affective economy of digital trust. During interviews and FGDs, users frequently described feelings of anxiety, fear, and frustration. One informal sector worker explained, “It’s like dealing with a robot. If I press something wrong, I don’t know what will happen.” This fear was especially prevalent among older users and those accessing features beyond the core balance check or claim status. These findings support Milakovich’s (2012) argument that public digital services must cultivate not only procedural reliability but also emotional reassurance. In other words, affective UX—the emotional experience of navigating a digital system—is a fundamental component of trust in the digital state. When users fear mistakes or receive unclear feedback, they may attribute fault to themselves, further reinforcing feelings of incompetence and alienation. Conversely, participants who reported positive emotional experiences often linked them to small but crucial design features: clear feedback messages, logical flow, and predictable outcomes. For example, one user noted, “When the balance updated immediately after a contribution, I felt like the system was working for me.” Costanza-Chock’s (2021) theory of design justice underscores that digital platforms must be emotionally inclusive—welcoming, understandable, and forgiving of user errors. In this light, affective UX becomes not an optional layer but a requirement for democratic legitimacy in welfare technologies.

JMO aspires to be a super app, combining core welfare functions with complementary services such as financial planning, streaming content, digital wallets, and labor market tools. However, the ambition of modular integration has resulted in experiential fragmentation for many users. Usability testing revealed abrupt shifts in visual design, navigation logic, and authentication flows when users moved between core welfare services and auxiliary features. For example, accessing the investment module prompted a re-login screen with a different interface color and layout, causing confusion among 87% of test participants. This undermined users’ sense of a coherent platform identity and generated uncertainty about which modules were official or third-party operated. This phenomenon reflects platform incoherence where the logic of modularity outpaces the capacity for integration. Without backend harmonization and frontend consistency, users perceive platform silos even within the same app, eroding trust and increasing drop-off rates. Lucas Jr. and Lopes (2024) warn that in the public sector, the pursuit of super app functionality must be carefully managed to avoid overwhelming users. The value of feature quantity is diminished if users cannot access them confidently or distinguish essential from optional services. In this regard, several survey respondents reported ignoring or disabling modules like JMO TV or financial tools, perceiving them as “not useful” or “too complicated.” Thus, utility and coherence—not breadth of service—must guide the expansion of digital welfare

platforms. Public super apps should prioritize user-centered modularity, organizing features around life events (e.g., job loss, retirement) rather than institutional logic.

A central concern emerging from this study is the way digital UX stratifies welfare access. While some users seamlessly navigate the system, others struggle due to educational background, age, device limitations, or geographic location. Cross-tabulation of survey data revealed that users with university-level education and formal sector employment were significantly more likely to report high satisfaction and lower error rates. In contrast, older adults and informal sector workers were more likely to rely on others for navigation or avoid using the platform entirely except when absolutely necessary. This confirms Eubanks' (2018) critique that automated public services tend to serve the "ideal user"—typically urban, literate, and digitally proficient—while marginalizing everyone else. In the context of JMO, this manifests in subtle but powerful ways, namely confusing icons, lack of in-app language options, inconsistent feedback, and minimal scaffolding for first-time users.

From the perspective of digital citizenship (Isin and Ruppert 2015), this UX stratification constitutes a form of structural exclusion. Those who cannot easily navigate the system are not simply experiencing inefficiency—they are being denied equal participation in a digital welfare regime. This has implications not only for service delivery but for the legitimacy and inclusivity of the welfare state itself. The JMO application represents a bold effort by the Indonesian government to digitize and integrate welfare provision. However, this study reveals that the success of such platforms cannot be judged solely by the number of downloads or positive feedback scores. UX in digital welfare systems is both infrastructure and institution—a mediating force through which trust, entitlement, and citizenship are enacted. Our findings illustrate that UX is deeply political. It stratifies inclusion, structures cognition, and shapes the emotional experience of interacting with the state. High satisfaction ratings may mask substantial design flaws that reproduce inequality. Fragmented design undermines trust. Affective neglect alienates vulnerable users. The promise of digital transformation in welfare will only be realized if UX is treated not as interface polish but as public infrastructure—normatively grounded, technically coherent, and emotionally inclusive.

Reimagining Digital Welfare through UX-Centered Governance

The findings from this study provide more than a technical assessment of the Jamsostek Mobile (JMO) application—they offer a critical lens into the evolving nature of welfare governance in the digital era. As digital platforms increasingly mediate state-citizen interactions, they become the new bureaucratic frontlines through which entitlements are accessed, rights are claimed, and state legitimacy is performed. In this context, user experience (UX) emerges not as a secondary design concern but as a core modality of democratic governance. This section explores the broader implications of this claim, proposing a normative and practical agenda for UX-centered digital welfare transformation grounded in accessibility, emotional inclusion, transparency, and participatory design.

Digital transformation in welfare provision has often been approached through the lens of efficiency, including the promise of reducing transaction costs, speeding up benefit disbursements, and automating administrative processes. While these objectives remain valid,

they reflect a technocratic rationality that sidelines the lived experience of users. As our findings show, platforms like JMO may function efficiently in backend operations while still producing confusion, anxiety, and exclusion at the user interface. In this sense, the UX layer becomes the de facto infrastructure through which welfare is made real to citizens.

This article proposes that UX in public digital services should be treated as civic infrastructure—as critical to democratic participation as roads, schools, or voting booths. Just as physical infrastructure distributes opportunities unevenly based on geography and class, so too do digital platforms mediate access based on literacy, confidence, and interface intelligibility. UX is not merely technical polish. It is statecraft in visual and functional form—an embodiment of how the state sees, values, and responds to its citizens.

A UX-centered approach to digital governance, therefore, demands a shift in institutional priorities from output metrics (e.g., number of downloads, service speeds) to experience metrics (e.g., task success, emotional confidence, inclusiveness). It also calls for embedding UX principles in the very architecture of welfare platforms, ensuring that every step—from onboarding to appeal—is grounded in usability, empathy, and fairness. If UX is infrastructure, then the principle of equity must guide its design. As Costanza-Chock (2021) and Eubanks (2017) argue, digital systems often reflect the biases of their creators, reproducing exclusion for those outside the normative user profile. In the context of JMO, this includes older adults, informal workers, low-income earners, and residents of digitally underserved regions. These groups were more likely to encounter high cognitive loads, emotional fatigue, and reliance on intermediaries to access the platform. To counteract this, we advocate for a design-for-margins approach, which begins not with the “average” user but with those most likely to be excluded. By designing for those on the margins, systems become more usable for everyone, fostering universality rather than fragmentation.

A recurring concern in both our usability tests and qualitative interviews was the opacity of decision-making processes within the JMO platform. Users expressed confusion over how benefit amounts were calculated, why certain features were inaccessible, and what steps would follow a claim submission. This lack of clarity undermines trust and reinforces a sense of helplessness in the face of digital bureaucracy. In response, we argue that transparency and explainability must become standard UX features, especially in platforms involving automated eligibility or algorithmic processing. Transparency is not just a legal or ethical requirement—it is a design choice that directly impacts user empowerment and procedural justice.

A particularly important yet under-addressed aspect of digital welfare is the emotional labor required to use public platforms. Our research shows that many users experience feelings of fear, anxiety, and inadequacy when navigating systems like JMO—especially when facing high-stakes decisions, unfamiliar terminology, or ambiguous system feedback. These emotions are not incidental, they are political signals of how inclusive or alienating the state. While calculative trust depends on system reliability, affective trust emerges from interface design, tone, and emotional intelligibility. In this sense, emotionally intelligent UX is crucial for inclusion. By affirming competence, guiding calmly, and offering recovery paths, emotionally intelligent UX helps the state feel present, caring, and responsive—especially for those historically alienated from its functions.

JMO's ambition to become a super app reflects broader global trends, particularly in Asia, where platforms like WeChat, Grab, and Gojek have bundled diverse services into unified interfaces (Lucas Jr., 2024). While super apps offer the potential for convenience and integrated service delivery, they also risk user confusion, cognitive overload, and fragmentation, especially when modules lack consistent design or require separate logins. In the public sector, super app design must avoid the pitfalls of private-sector mimicry and instead prioritize coherence and modular legibility. This suggests that utility, not volume, must guide module inclusion.

Perhaps the most urgent implication of this research is the need for participatory design in the development and evolution of welfare platforms. Too often, digital public services are built by external vendors or technocratic agencies without meaningful consultation with users—particularly those at the margins. The result is a system optimized for the imagined “ideal user,” rather than the diverse realities of citizens on the ground. Drawing on Costanza-Chock's (2021) design justice framework and civic tech literature (Moser-Plautz and Schmidhuber 2023; Force 2023), we advocate for the institutionalization of co-creation practices in welfare technology development. Such practices not only produce better UX but also reposition citizens as co-constructors of public infrastructure. In doing so, participatory design becomes a tool of empowerment and democratic renewal, embedding accountability and responsiveness at the core of welfare digitalization.

This section has argued that the digital transformation of welfare services must be guided by a UX-centered governance model—one that sees user experience as a fundamental infrastructure of inclusion, trust, and democratic legitimacy. In the case of Indonesia's JMO platform, the findings point to the necessity of reimagining UX not as a cosmetic layer but as a normative foundation of the digital welfare state. We propose six pillars for this reimagining, namely (1) treating UX as public infrastructure; (2) designing for the margins; (3) embedding transparency and explainability; (4) cultivating emotional inclusion; (5) ensuring platform coherence in super app design; and (6) institutionalizing participatory design practices. These principles are not mutually exclusive—they form a relational ecology of design, governance, and rights in an increasingly platform-mediated public sphere. Ultimately, the digital welfare state will be judged not by how many features it offers, but by how it feels to use, who it includes, and what kind of relationship it fosters between the state and its citizens. A UX-centered approach ensures that the promise of digital transformation becomes a project of democratic deepening—not a new frontier of exclusion.

Conclusion

This article has examined the transformation of welfare provision in Indonesia through the case of the Jamsostek Mobile (JMO) application, analyzing the intersection of digital governance, user experience (UX), and inclusive state-citizen relations. Through a mixed-methods study involving surveys, usability testing, and qualitative interviews, we have demonstrated that the digitization of social protection services is not merely a matter of technological modernization but a profound restructuring of institutional practices, expectations, and affective encounters. As platforms become the primary interface between citizens and the state, UX emerges as a critical infrastructure—shaping not only efficiency and satisfaction but also legitimacy, trust, and civic belonging.

The findings reveal a complex and often contradictory landscape. On one hand, JMO represents a significant innovation in Indonesia's social protection system, offering real-time access to benefits, streamlined processes, and the possibility of integrated services. Many users, particularly those in urban or formal employment contexts, expressed high levels of satisfaction with core features such as balance checking and claims tracking. On the other hand, the study uncovered widespread usability challenges, emotional barriers, and cognitive burdens, especially among older adults, informal workers, and those with limited digital literacy. For these users, digital welfare platforms like JMO often reproduce—and in some cases intensify—the exclusions they are meant to alleviate. These empirical patterns highlight what we have called the “UX paradox”: the coexistence of high reported satisfaction with significant design frictions and procedural opacity. Users frequently praised the platform as “useful,” yet struggled to complete key tasks or reported anxiety about interacting with unfamiliar modules. This paradox underscores the importance of moving beyond surface-level metrics to consider the deeper experiential and affective dimensions of welfare platformization. To address these tensions, we have proposed a reframing of UX as relational, cognitive, affective, and political infrastructure. UX is not an aesthetic or auxiliary concern—it is the medium through which rights are accessed, institutions are trusted, and the state is experienced. Poor design can lead to disenfranchisement; empathetic and inclusive design can foster confidence and recognition. In this light, UX becomes a form of digital statecraft, and its ethical implications must be taken seriously. Central to this reimagining is the need to design for the margins. Digital transformation must begin with those most likely to be excluded—not merely as passive beneficiaries but as co-creators of public infrastructure. Participatory design, progressive onboarding, language simplification, and interface scaffolding are not optional improvements; they are the foundation of a just digital welfare regime. Similarly, transparency and explainability must be integrated into the platform's structure, ensuring that users understand how decisions are made and how they can contest them. Algorithmic opacity in eligibility determination undermines democratic values and erodes public trust.

Looking forward, the Indonesian government—and governments globally—must confront the realities of platform-mediated governance in the welfare sector. This entails recognizing that technology is not neutral and that digital systems embed assumptions about who counts, what matters, and how citizenship is practiced. It also requires new governance models that include multidisciplinary UX teams, robust feedback mechanisms, and iterative redesign processes grounded in empirical research and ethical commitment. In conclusion, JMO offers an instructive case of both promise and caution. It demonstrates the potential of digital tools to modernize welfare delivery and expand access, but also exposes the dangers of abstraction, technical overreach, and user alienation. If welfare platforms are to fulfill their promise, they must be built not only for performance but for people. UX must be elevated from a technical function to a democratic imperative—a frontline of justice, care, and inclusion in the digital state.

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