



Invisible citizens, visible policies: Digital welfare, social exclusion and the changing nature of citizenship in India

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Abstract

India's welfare architecture has undergone a significant transformation with the increasing adoption of digital identification, electronic payments, online registration, biometric authentication, interoperable databases and other forms of Digital Public Infrastructure (DPI). These technologies have been promoted as instruments for improving transparency, reducing leakages, strengthening administrative efficiency and expanding access to public services. Yet the digitalisation of welfare also raises an important political question: what happens when access to a formally guaranteed welfare entitlement becomes increasingly dependent upon an individual's ability to successfully navigate a technologically mediated system?

This paper examines the relationship between digital welfare and substantive citizenship in India. It argues that digitalisation should not be understood merely as an administrative or technological transformation. It is also transforming the relationship between citizens and the state by introducing new conditions through which welfare entitlements are recognised, verified and delivered. While digital systems can make citizens more visible to the state through improved identification and data integration, they can simultaneously make some citizens effectively invisible when they lack reliable connectivity, digital literacy, documentation, authentication capacity or access to responsive institutional support. The paper therefore conceptualises digital exclusion as more than a technological deficit; it is a potential form of institutional and citizenship-based exclusion.

Drawing upon qualitative analysis of government documents, policy reports, academic literature and selected evidence concerning digital welfare delivery in India, the paper explores the tension between administrative efficiency and substantive inclusion. It argues that a welfare system cannot be considered genuinely inclusive merely because benefits are digitally transferable or technologically traceable. Inclusion must also be assessed in terms of citizens' practical capacity to claim and receive their entitlements. The paper concludes by proposing a citizen-centred approach to digital welfare governance in which technological systems complement rather than replace human institutions, alternative access mechanisms are retained, and accountability mechanisms are designed around the needs of vulnerable citizens.

Keywords: Digital welfare, digital public infrastructure, citizenship, social exclusion, welfare governance, Aadhaar, digital divide, India, state–citizen relations

Introduction

Digital technology has increasingly become a central part of welfare governance in India. Government services that once depended largely on physical documents, face-to-face interactions and local administrative institutions are now increasingly delivered through digital identity, online databases, biometric authentication, Direct Benefit Transfer and electronic payment systems. These changes have the potential to improve efficiency, transparency and the timely delivery of welfare benefits. However, they also raise an important question: does greater digitalisation necessarily make welfare more inclusive?

The question becomes particularly significant because welfare is not merely an administrative process. For millions of citizens, welfare programmes provide essential support for food, income, healthcare and basic living conditions. When access to these entitlements increasingly depends on digital systems, differences in digital literacy, internet connectivity, documentation, authentication and access to banking facilities can influence whether citizens are actually able to receive what they are entitled to. Thus, a person may be formally recognised as a beneficiary while still facing practical barriers in accessing the benefit.

This paper uses the idea of the “invisible citizen” to describe this paradox. The term refers to citizens who may be visible within government databases but remain practically

excluded from welfare because they cannot successfully navigate the technological or institutional requirements of digital delivery. Digitalisation can therefore produce a situation in which citizens become more visible as data while becoming less visible as individuals with concrete social rights.

The issue also has wider implications for citizenship and the relationship between the state and society. Citizenship is not meaningful merely because rights exist formally; citizens must also possess a realistic ability to exercise those rights. Digital welfare consequently needs to be examined not only as a technological or administrative reform but also as a transformation in the way the state recognises, verifies and interacts with its citizens.

This paper argues that digital exclusion should be understood as a potential form of institutional and social exclusion, rather than merely as a lack of technological access. While digital welfare can improve administrative efficiency, it can also reproduce existing inequalities when citizens have unequal capacities to use digital systems. The paper therefore examines the tension between technological efficiency and substantive inclusion in India's emerging digital welfare state, with particular attention to the changing state–citizen relationship.

The central question guiding the study is: How does the digitalisation of welfare delivery affect substantive

citizenship and social inclusion in India? The paper contends that the success of digital welfare should ultimately be judged not simply by the number of transactions processed or beneficiaries registered, but by whether citizens can actually access their entitlements, seek assistance when systems fail, and obtain effective remedies when exclusion occurs.

Background: From Welfare Administration to Digital Welfare Governance

The evolution of welfare governance in India reflects the broader transformation of the relationship between the state and its citizens. In the earlier system of welfare administration, the delivery of public benefits depended largely on physical records, government offices, frontline officials and local institutions. Citizens generally had to approach a particular office, submit documents, establish their eligibility and interact with officials or local intermediaries to receive a benefit. Although this system allowed for direct human interaction, it was also vulnerable to delays, administrative discretion, incomplete records, duplication and leakages. For citizens living in remote or economically disadvantaged circumstances, the distance between the welfare institution and the beneficiary could itself become a barrier.

The expansion of welfare programmes over the decades further increased the administrative responsibilities of the Indian state. As welfare became an important instrument for addressing poverty, food insecurity, unemployment and social vulnerability, governments needed mechanisms capable of identifying eligible beneficiaries and delivering benefits on a much larger scale. The traditional administrative structure often struggled with this expanding responsibility. Problems relating to inaccurate beneficiary lists, intermediaries, delays and difficulties in monitoring delivery encouraged the search for more efficient methods of welfare administration.

The gradual spread of information and communication technologies introduced a new possibility. Computerisation initially focused on improving record keeping and administrative efficiency, but its role gradually expanded beyond internal government functions. With the growth of internet connectivity, digital databases, electronic payments and mobile technology, governments began using digital tools directly in the delivery of public services. Welfare administration consequently started moving from a largely paper-based and physically mediated system towards a more interconnected digital framework.

A significant development in this transformation has been the increasing integration of digital identity, financial inclusion and electronic payment systems into welfare delivery. The expansion of Aadhaar, bank-account access and mobile connectivity created the technological foundations for linking beneficiaries with government programmes. Direct Benefit Transfer further strengthened this shift by enabling certain welfare payments to be transferred directly into beneficiaries' bank accounts. The underlying objective was to reduce unnecessary intermediaries, improve transparency and ensure that public funds reached intended recipients more efficiently.

This transformation gradually changed the nature of welfare administration. The traditional question of "Who is the beneficiary?" increasingly became connected with questions

such as "Can the beneficiary be digitally identified?", "Can their identity be authenticated?" and "Can the benefit be transferred through the available digital and financial infrastructure?" Welfare delivery thus became increasingly dependent upon the interaction between citizens and technological systems.

The emergence of Digital Public Infrastructure (DPI) has accelerated this process. Digital identity, payment systems, data-sharing mechanisms and online service platforms increasingly operate as interconnected components of governance. The significance of this development extends beyond technological convenience. It represents a shift in the institutional architecture through which citizens encounter the welfare state. The state is no longer present only through a government office or frontline official; it is also present through databases, digital platforms, authentication mechanisms and electronic transactions.

Digital welfare governance has brought several potential advantages. Digital records can facilitate faster information sharing, electronic payments can reduce transaction time, and technology can improve the monitoring of welfare programmes. For citizens who possess reliable digital access and adequate technological skills, online systems may reduce the need to repeatedly visit government offices and can make certain services more convenient. From the perspective of public administration, digitalisation can also strengthen the state's capacity to coordinate large-scale welfare programmes.

However, the transition also creates new challenges. Digital systems operate within a society marked by significant inequalities in income, education, technological access and digital literacy. Not every citizen has the same ability to use a smartphone, access reliable internet services, maintain a bank account, complete an online application or resolve an authentication problem. Consequently, a system designed to simplify welfare delivery for some citizens may create additional difficulties for others.

This is particularly important when digital mechanisms become closely connected with access to essential welfare entitlements. A failed authentication, incorrect database entry, inactive account, connectivity problem or lack of digital assistance may appear to be a technical issue, but its consequences can be deeply social and political. For a citizen dependent upon a welfare benefit, a technological failure may mean a delayed payment, an unsuccessful transaction or, in the worst case, the inability to access an entitlement altogether.

The central challenge, therefore, is not to view digitalisation as either inherently beneficial or inherently harmful. Its consequences depend upon how technological systems are designed, implemented and supported by institutions. Digital technology can strengthen welfare governance when it complements administrative capacity and makes services more accessible. Conversely, it can deepen exclusion when technological requirements become barriers that citizens must overcome on their own.

This transition from welfare administration to digital welfare governance therefore represents more than a change in administrative technique. It is a transformation in the relationship between the state and citizen. Earlier welfare systems placed considerable emphasis on interaction with bureaucratic institutions and local officials; digital welfare increasingly places emphasis on the citizen's interaction

with technological systems. The important political question is whether this transition makes the welfare state more responsive to citizens or whether it creates new forms of distance between citizens and the institutions responsible for protecting their social rights.

The background of India's digital welfare transformation thus provides the basis for examining a central paradox: technology can make the state more capable of identifying and reaching citizens while, at the same time, making access more difficult for citizens who lack the resources required to navigate technological systems. Understanding this paradox is essential for evaluating whether India's emerging digital welfare governance is producing not only greater administrative efficiency, but also meaningful and substantive social inclusion.

Literature Review

The literature on digital welfare in India has grown considerably with the expansion of Aadhaar, Direct Benefit Transfer, biometric authentication and other forms of digital public infrastructure. Existing scholarship broadly falls into three interconnected strands: digitalisation as a mechanism of inclusion and administrative efficiency, digitalisation as a source of exclusion, and digitalisation as a transformation of citizenship and state power. Reviewing these strands helps establish the specific contribution of the present study.

One strand of scholarship has emphasised the inclusive potential of digital identity and technology-enabled welfare. Bhatia and Bhabha (2017), in their study of Aadhaar and social protection, examine the expectation that a national identification system could improve access to welfare, financial inclusion and service delivery. Their work, however, cautions that the existence of a digital identity system does not automatically guarantee effective social protection. Similarly, Addo and Senyo's review of 40 studies on Aadhaar identifies several ways in which digital identification can potentially contribute to socioeconomic inclusion, while also highlighting the limited understanding of the actual relationship between digital identity and inclusion. These studies are important because they establish that digitalisation has genuine potential to address some longstanding weaknesses in welfare administration. (Taylor & Francis Online) (ScienceDirect)

A second body of literature focuses more critically on exclusion generated through digital and biometric systems. Research on technology-enabled welfare delivery has shown that authentication failures, incomplete databases and technological requirements can create difficulties for legitimate beneficiaries. Studies of the Public Distribution System in Tamil Nadu, for example, demonstrate that digitisation and Aadhaar-enabled systems can improve certain forms of transparency while simultaneously generating new forms of opacity and exclusion. The research also shows that informal mediation by family members, local actors and other intermediaries continues to play an important role in helping citizens navigate digital welfare systems. This challenges the assumption that digitalisation necessarily eliminates intermediaries or makes welfare delivery uniformly more accessible. (Taylor & Francis Online)

The question of exclusion has also been examined through the experiences of marginalised communities. Recent research on the Gutti Koya Adivasi community, for

instance, finds that Aadhaar can generate vulnerabilities in accessing health and nutrition-related welfare services, while simultaneously functioning as a technology of surveillance and state discipline. Research on women and access to government schemes further demonstrates that exclusion can occur at several stages—from inadequate state outreach and rejection of claims to situations where citizens are formally included in a programme but remain excluded from its actual benefits. Such findings suggest that exclusion cannot be reduced to the simple absence of digital connectivity; it can also arise from the institutional procedures through which citizens are recognised and verified. (Sage Journals) (Taylor & Francis Online)

A third strand examines digitalisation through the lens of citizenship and state power. Scholars have argued that Aadhaar and related technologies do more than improve administrative processes; they alter the ways in which the state identifies, categorises and interacts with individuals. Research on technological citizenship in India suggests that digitised identification and benefit delivery can create new barriers to accessing entitlements, particularly for poorer citizens. At the same time, greater visibility within digital systems can generate new forms of vulnerability, including concerns about surveillance and control. □ Other scholarship has similarly examined Aadhaar as part of a changing citizenship regime in which technological systems contribute to new patterns of inclusion and exclusion. (Taylor & Francis Online)

The literature also challenges the assumption that digitalisation simply removes human mediation from welfare governance. Research on Aadhaar implementation has shown that civil society organisations and other intermediaries continue to play an important role in helping marginalised populations negotiate the requirements of digital identification. This indicates that digital governance does not necessarily replace older forms of mediation; instead, it can create new relationships between citizens, state institutions, civil society and technological systems. (Taylor & Francis Online)

Research Gap

Despite this growing literature, an important gap remains. Existing studies have provided valuable insights into Aadhaar, authentication, privacy, digital exclusion, welfare delivery and technological citizenship, but these issues are often examined separately. Less attention has been given to bringing them together through the broader political concept of substantive citizenship.

The present study attempts to address this gap by shifting the question from whether welfare has been digitalised to whether citizens are actually able to exercise their welfare rights within a digitalised system. It conceptualises digital exclusion not merely as a technological problem but as a potential form of institutional exclusion. In doing so, the study connects digital welfare with the wider Political Science concerns of citizenship, state–citizen relations, accountability and social justice.

The central contribution of the paper is therefore its focus on the paradox of the “invisible citizen”: a person who may be formally recognised and digitally recorded by the state but who remains practically excluded from an entitlement because of technological or institutional barriers. This perspective allows the paper to move beyond the simple

debate of whether digital welfare is “good” or “bad” and instead examine under what institutional conditions digitalisation can genuinely promote substantive inclusion.

Research Methodology

This study adopts a qualitative, exploratory and analytical research approach to examine the relationship between digital welfare, social exclusion and substantive citizenship in India. The research is primarily based on secondary sources, including government policy documents, reports of relevant ministries and public institutions, parliamentary and committee documents, peer-reviewed journal articles, academic books, research reports and publications of national and international organisations. The study particularly examines the growing role of digital identity, Direct Benefit Transfer (DBT), biometric authentication, electronic payments, online registration and digital public infrastructure in welfare delivery.

The study follows a descriptive-analytical research design. The descriptive component provides an understanding of the transition from conventional welfare administration to technology-mediated welfare governance, while the analytical component examines its implications for citizens' actual access to welfare entitlements. Selected welfare programmes and documented instances of technological or administrative exclusion are used as illustrative cases to understand broader patterns rather than to claim universal conclusions.

The collected material is analysed through thematic analysis, with emphasis on four major themes: digitalisation and administrative efficiency; technological barriers and social exclusion; changing state–citizen relations; and substantive citizenship and accountability. The study also examines the intersection between digital exclusion and existing socio-economic disadvantages, particularly where limited digital literacy, poor connectivity, documentation difficulties or inadequate institutional support may affect access to welfare.

The research follows a critical and interpretive perspective, avoiding the assumption that digitalisation is either entirely beneficial or inherently exclusionary. Instead, it evaluates the conditions under which digital technologies can strengthen welfare delivery and the circumstances in which they may reproduce existing inequalities. The study also uses a rights-based perspective, considering whether citizens possess meaningful opportunities to access, question and claim their welfare entitlements.

To improve the reliability of the analysis, information from different types of sources is compared and cross-checked wherever possible. Academic arguments are considered alongside official policy documents and empirical evidence, allowing the study to distinguish between the intended objectives of digital welfare policies and their implementation-related challenges. The research does not claim to provide a statistical measurement of digital exclusion; rather, it seeks to understand the institutional and political processes through which digitalisation can create or reduce exclusion.

Overall, the methodology connects technological developments in welfare administration with broader Political Science concerns such as citizenship, state capacity, accountability, equality, institutional responsibility and social justice. Through this approach, the study seeks to

understand whether India's emerging digital welfare architecture is merely improving administrative efficiency or is also contributing to a more accessible and substantive form of citizenship.

Conceptual Framework: Digital Welfare, Citizenship and Social Exclusion

The movement from conventional welfare administration to digital welfare governance requires a broader understanding of what it means to be included in the welfare state. In a traditional administrative system, inclusion was generally understood in terms of eligibility: if a person satisfied the prescribed conditions, they were expected to receive the relevant benefit. In a digital environment, however, eligibility alone may not be sufficient. Citizens may also need to possess the practical ability to interact with technological systems through which their entitlements are delivered. This creates an additional layer between the formal recognition of a right and its actual enjoyment.

This paper approaches the issue through the concept of substantive citizenship. Citizenship is not limited to legal membership of a political community. It also involves the effective enjoyment of rights and the ability to participate in institutions that affect one's life. A welfare entitlement therefore becomes meaningful only when citizens can realistically access it. If an individual is officially recognised as eligible for a benefit but cannot obtain it because of technological, administrative or institutional barriers, a gap emerges between formal entitlement and substantive access.

Digitalisation introduces new dimensions to this gap. As welfare delivery becomes increasingly dependent upon digital identity, electronic records, online applications, authentication and electronic payments, citizens' ability to exercise their entitlements may become partly dependent on their digital capabilities. This does not mean that every digital welfare system necessarily excludes vulnerable citizens. Rather, it suggests that technological design can influence the conditions under which citizens experience their rights.

Digital Exclusion as More Than a Digital Divide

The term digital divide is generally associated with unequal access to digital devices, internet connectivity and technological resources. While this remains an important dimension of exclusion, it does not fully explain the difficulties that can arise within a digital welfare system. A person may possess a mobile phone and internet access and still struggle to obtain a welfare benefit because of limited digital literacy, complicated procedures, authentication problems or inaccurate information in government records.

Digital exclusion should therefore be understood as a multi-dimensional phenomenon. It can emerge through several interconnected barriers: lack of connectivity, inadequate digital skills, language difficulties, financial exclusion, documentation problems, technical errors and limited access to human assistance. These barriers can become particularly serious when citizens have no practical alternative to the digital mechanism.

The problem is therefore not simply whether citizens are connected to the internet. The more important question is whether they can use digital systems effectively to exercise their rights.

The State–Citizen Relationship in a Digital Welfare System

Digital welfare also changes the way citizens encounter the state. Earlier welfare administration involved visible institutions such as government offices, local officials and frontline workers. Citizens could often identify where a problem had occurred and whom they needed to approach. Digital systems can make these interactions less direct. A rejected application, unsuccessful authentication or delayed transaction may appear as a technical outcome without making the institutional responsibility behind it immediately clear.

This creates a new form of mediated relationship between the state and citizen. Databases, algorithms, authentication systems and digital platforms increasingly participate in decisions that affect access to public services. The state remains responsible for welfare delivery, but citizens may experience that responsibility through technological interfaces rather than direct administrative interaction.

This development raises an important issue of accountability. If a technological system produces an incorrect outcome, the citizen should not be expected to bear the entire burden of correcting it. An inclusive welfare system must provide accessible mechanisms through which errors can be identified, challenged and resolved.

The Paradox of Digital Inclusion

The relationship between digitalisation and inclusion is therefore not straightforward. Digital technology can remove certain barriers while creating others. For citizens with reliable connectivity, digital skills and access to banking facilities, online welfare systems may be faster and more convenient than conventional procedures. For citizens lacking these resources, however, the same system may introduce additional steps between the person and the benefit.

This creates what can be described as the paradox of digital inclusion: a technology introduced to expand access can sometimes reproduce existing inequalities in a new form.

The concern is particularly relevant for marginalised communities because social disadvantages often overlap. Economic insecurity may coincide with limited digital literacy; geographical isolation may coincide with poor connectivity; and educational disadvantage may make complex digital procedures more difficult to navigate. Digitalisation can therefore amplify pre-existing inequalities when institutional safeguards are inadequate.

Towards the Idea of the “Invisible Citizen”

The concept of the “invisible citizen” captures the central concern of this paper. An invisible citizen is not necessarily someone who is absent from official records. Rather, it is a citizen whose formal recognition by the state does not translate into effective access to welfare.

This distinction is important because digital governance can increase the state's ability to record, classify and identify individuals. Yet being visible as data does not necessarily mean being visible as a person with a legitimate claim. A citizen may appear correctly in a database but remain unable to receive a benefit because of a failed authentication, outdated information, technical difficulty or lack of institutional support.

The paper therefore argues that the success of digital welfare should be measured not merely by how efficiently the state processes information, but also by how effectively citizens can exercise their entitlements.

This conceptual perspective provides the foundation for the subsequent analysis of India's digital welfare system. It shifts attention from technology alone towards the broader political questions of citizenship, equality, institutional responsibility and social justice. The central challenge is to ensure that digital transformation strengthens the capacity of the welfare state without turning technological competence into an unintended requirement for exercising basic social rights.

Digitalisation and the Changing Nature of Welfare Delivery in India

India's welfare system has gradually moved from a predominantly paper-based administrative structure towards a technology-mediated model of service delivery. Initiatives such as Direct Benefit Transfer (DBT), digital identity, online registration and electronic payments have sought to reduce delays, improve transparency and minimise the role of intermediaries. This transition has strengthened the state's ability to manage welfare programmes on a large scale.

However, the benefits of digitalisation are not experienced equally. Citizens with stable internet access, digital literacy and banking facilities may find digital welfare systems relatively convenient, while others may struggle with authentication, documentation, connectivity or online procedures. The same technology that simplifies access for one group can therefore become an additional barrier for another.

This creates an important distinction between administrative efficiency and substantive inclusion. A welfare transaction may be successfully recorded in a government system, yet the intended beneficiary may still experience difficulty in obtaining the benefit. Digitalisation should therefore not be evaluated only by the number of transactions completed or beneficiaries registered. It should also be assessed through citizens' actual ability to access their entitlements.

The emerging digital welfare state consequently requires a balance between technological innovation and human-centred governance. Digital systems can strengthen welfare delivery, but they should remain supported by accessible institutions, alternative modes of access and effective grievance-redressal mechanisms. Otherwise, technological reform may unintentionally reproduce existing social inequalities in a new digital form.

Digital Exclusion and the Vulnerable Citizen

The impact of digital welfare is not uniform across society. Citizens differ considerably in their access to technology, education, income, connectivity and institutional support. For economically and socially vulnerable groups, these differences can become significant barriers to accessing welfare entitlements. A digital system may appear simple from an administrative perspective, while being considerably more difficult for a citizen who has limited digital literacy or unreliable access to technology. One important source of exclusion is digital literacy. Knowing how to use a mobile phone does not necessarily mean that a person can complete an online application, understand authentication requirements, correct an error in a digital

record or navigate a government portal. Similarly, poor connectivity or limited access to banking facilities can make digital welfare delivery difficult, particularly in remote and disadvantaged communities. Another concern is the growing dependence on authentication and accurate digital records. When access to a welfare service depends upon successful verification, even a minor mismatch or technical failure can interrupt the delivery of a benefit. For a financially secure citizen, such a delay may be inconvenient; for a person dependent upon food or income support, it can have much more serious consequences. Digital exclusion can therefore reinforce existing inequalities rather than creating entirely new ones. Citizens who already face economic, geographical or social disadvantages may encounter additional barriers when welfare systems become increasingly technology-dependent. The issue is consequently not simply about providing digital access but ensuring that citizens have the capacity and institutional support to use that access effectively.

A genuinely inclusive digital welfare system must therefore retain human assistance, accessible grievance mechanisms and alternative channels of service delivery. Technology should function as a means of strengthening citizens' access to welfare, rather than becoming another condition that citizens must satisfy before they can exercise their rights.

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to welfare, rather than becoming another condition that citizens must satisfy before they can exercise their rights.

The Paradox of Digital Inclusion: Efficiency versus Accessibility

Digitalisation has undoubtedly created new possibilities for improving welfare administration in India. Electronic transfers can reduce delays, digital records can improve coordination, and technology can make the monitoring of welfare programmes more systematic. For citizens who have regular internet access, digital literacy and appropriate financial facilities, these changes can make interactions with government considerably easier. However, administrative efficiency and citizen accessibility are not always the same thing. A system may function efficiently from the perspective of the administration while remaining difficult for certain citizens to use. This distinction is particularly important in welfare governance because those who depend most heavily on public support may also have fewer resources to overcome technological difficulties. The central paradox is therefore that a system designed to increase inclusion can sometimes create new forms of exclusion. Digital authentication, online applications and electronic payments may reduce certain traditional barriers, but they can introduce others. When a technical problem, incorrect record or lack of connectivity prevents a person from receiving an entitlement, the problem is no longer merely technological; it becomes a question of social justice and administrative responsibility.

This suggests that digital welfare should be evaluated through two different measures. The first is administrative performance—whether the system processes information and transfers efficiently. The second is substantive accessibility—whether citizens can actually obtain the benefits for which they are eligible. The second measure is particularly important because successful digital transactions do not necessarily demonstrate that vulnerable citizens have been successfully included.

A more inclusive approach would therefore treat technology as a supporting instrument rather than the sole gateway to welfare. Digital systems should be accompanied by human assistance, alternative methods of accessing services and responsive grievance mechanisms. Such safeguards can ensure that technological progress strengthens the welfare state without making digital competence an unintended condition for exercising basic social rights.

The challenge for India is consequently not to choose between technology and traditional administration. It is to develop a model in which digital efficiency and human accessibility reinforce each other. Only then can digital transformation contribute to a welfare system that is not merely technologically advanced but also socially inclusive and democratically accountable.

Digital Welfare and the State–Citizen Relationship

Digitalisation has changed the way citizens interact with the welfare state. Earlier, welfare delivery depended largely on direct contact with government offices, officials and local institutions. Today, databases, authentication systems, online platforms and electronic payments increasingly mediate this relationship. This can make welfare delivery faster and more transparent, but it can also make administrative processes less visible to citizens.

When a digital application fails, an authentication does not work or a payment is delayed, citizens may not always know where the problem lies or whom to approach. This raises an important question of accountability. A technologically mediated welfare system should not transfer the responsibility for correcting administrative or technical errors entirely to the beneficiary. Digital welfare should therefore strengthen, rather than weaken, the accessibility of the state. Technology can improve governance only when citizens continue to have meaningful opportunities to seek assistance, challenge decisions and obtain remedies. The quality of digital welfare ultimately depends on whether technology creates a more responsive relationship between citizens and public institutions.

Towards an Inclusive Digital Welfare Framework

An inclusive digital welfare system should place citizens' actual ability to access benefits at the centre of technological reform. Digital platforms should be supported by alternative channels of service delivery so that technological difficulties do not automatically result in the denial of legitimate entitlements.

Effective grievance redressal is equally important. Citizens should have simple and accessible mechanisms for reporting authentication failures, incorrect records, delayed payments and other problems. Local-level human assistance should also remain available, particularly for people with limited digital literacy or connectivity.

Finally, the success of digital welfare should be measured not only through efficiency and the number of transactions completed, but also through accessibility, inclusion and citizen experience. Digital technology should serve as a bridge between citizens and the welfare state, not become another barrier separating vulnerable people from the rights and benefits intended for them.

Discussion

The findings of this study suggest that the digitalisation of welfare in India represents more than a technological improvement in public administration. It is gradually changing the manner in which citizens access the state and exercise their welfare entitlements. Digital identity, online platforms, authentication systems and electronic payments can reduce delays and improve administrative coordination, but their benefits are not experienced equally by all sections of society. The central issue is therefore not whether digital welfare is beneficial or harmful in itself, but who is able to benefit from it and under what conditions.

The analysis highlights a significant tension between administrative efficiency and substantive inclusion. From an institutional perspective, digital systems can make welfare delivery more systematic, traceable and scalable. However, efficiency within a government system does not necessarily mean accessibility for the citizen. A welfare transaction may be successfully recorded while an eligible person continues to face difficulties in obtaining the benefit. This distinction challenges the tendency to measure the success of digital welfare primarily through quantitative indicators such as registrations, transactions or transfers.

Another important finding concerns the changing meaning of exclusion. Traditionally, exclusion from welfare was often associated with poverty, geographical isolation, lack of documentation or bureaucratic discrimination.

Digitalisation does not necessarily remove these problems; instead, it can reproduce existing inequalities through technological processes. Limited digital literacy, poor connectivity, authentication difficulties, inaccurate records and inadequate institutional support can become additional barriers. Digital exclusion is therefore best understood as an extension of existing social and institutional inequalities rather than simply a problem of access to technology.

The study also draws attention to the changing state–citizen relationship. In conventional welfare administration, citizens could often identify the institution or official responsible for a decision. In digital systems, responsibility may become distributed across databases, platforms, authentication mechanisms and different administrative agencies. This can make it difficult for citizens to understand why an entitlement has been delayed or denied. Consequently, digital welfare creates a need for stronger mechanisms of transparency and accountability.

The concept of the “invisible citizen” captures this contradiction. Digital systems can increase the state's capacity to identify and record citizens while simultaneously creating situations in which some citizens are unable to translate formal recognition into actual welfare access. The citizen may therefore be visible within the administrative database but invisible when attempting to exercise a social right. This demonstrates why substantive citizenship is a useful lens for evaluating digital welfare.

At the same time, the findings should not be interpreted as an argument against digital transformation. Digitalisation can contribute significantly to better welfare governance when it is accompanied by appropriate institutional safeguards. The more important requirement is to ensure that technology does not become the only gateway through which citizens can access essential services. Human assistance, alternative access mechanisms and effective grievance redressal remain necessary components of an inclusive welfare system.

Overall, the discussion indicates that the future of India's digital welfare state should be assessed through a broader understanding of success. Efficiency is important, but efficiency without accessibility can produce exclusion. A genuinely democratic digital welfare system must therefore combine technological capability with institutional responsiveness and social sensitivity. The ultimate measure of digital welfare should be whether technology brings the state closer to citizens—especially those who are most vulnerable—rather than creating new forms of distance between citizens and their rights.

Policy Implications

The findings suggest that digital welfare policies should be designed around accessibility, inclusion and accountability, rather than efficiency alone. Digital platforms should not become the only route to essential welfare benefits. Alternative offline and assisted mechanisms should remain available for citizens who face technological or connectivity barriers. Grievance-redressal systems should be simple, local and responsive so that authentication failures, incorrect records and delayed payments can be addressed without placing the entire burden on beneficiaries. Greater attention should also be given to digital literacy, accessible interfaces and language diversity. Finally, welfare authorities should evaluate not only successful digital transactions but also

failed applications, delayed benefits and patterns of exclusion to identify where digital systems are creating unintended barriers.

Conclusion

The digitalisation of welfare has considerable potential to improve the efficiency and reach of India's welfare state, but technology alone cannot guarantee inclusion. This paper has argued that digital welfare can create a paradox in which citizens become more visible within government databases while remaining practically excluded from the benefits to which they are entitled. Digital exclusion should therefore be understood as an issue of citizenship, equality and institutional responsibility, rather than merely a technological problem.

A truly inclusive digital welfare system must combine technological innovation with human support, accessible grievance mechanisms and alternative modes of service delivery. Ultimately, the success of India's digital welfare state should be measured not simply by how efficiently it processes data and transfers benefits, but by whether every eligible citizen can meaningfully exercise their welfare rights.

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