

## Statelessness and digital identity

Beyond “inclusion” as a metric for an acceptable identification system



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# Statelessness and digital identity: Beyond “inclusion” as a metric for an acceptable identification system

This briefing examines the concept of “inclusive” ID used by development sector professionals implementing new digital identity systems, framing the discussion against the agenda set by the UN Sustainable Development Goals, to “leave no one behind.” It picks up on debates on the benefits and risks of digital identity, in the specific context of the risks of new identification systems for those who are, or may be, stateless. It argues that, without specific measures to ensure that nationality is recognized or granted, whether by the state of residence or another state, new identification systems will generally replicate or intensify existing patterns of exclusion.

The experiences of stateless people with digital identity systems are important for wider understanding; they teach us about the broader risks, limits, and opportunities of these technologies for all populations. As those most vulnerable to exclusion by design, stateless people reveal the gaps between the promise of technologies and the institutional reality that affect everyone interacting with digital identity systems, highlighting the universal need for human-centric design, robust governance frameworks, and legal protections that prioritize dignity and rights over administrative convenience and the state’s own policy goals.

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Among the explosion of different initiatives supporting the rollout of digital identity systems, the idea of “inclusive” ID has gained traction within the development sector. The World Bank’s Identification for Development Initiative, which supports the creation of “inclusive and trusted digital ID” to unlock opportunities for the most vulnerable, has set the tone of inclusive ID discourse.<sup>1</sup> Similar endorsement of the concept comes from USAID,<sup>2</sup> the Gates Foundation,<sup>3</sup> McKinsey,<sup>4</sup> Women in Identity,<sup>5</sup> and even the UK’s trade association for the digital technology sector.<sup>6</sup>

This emphasis on inclusive ID is built on the observation that lack of a state-registered legal identity—and the credentials (such as a birth certificate or national identity card) that enable proof of that identity for a variety of public and private transactions—results in significant exclusion from access to rights and services in many (all?) countries across the world. The agenda set by the UN Sustainable Development Goals (SDGs) does indeed imply that states should “provide legal identity for all, including birth registration.”<sup>7</sup>

Others, however, have warned of the dangers of the rapid rollout of new biometric and digital identification technologies to fulfill this target, and the risk of enabling surveillance without ensuring rights. These perspectives highlight not only questions of data protection, privacy, and data justice,<sup>8</sup> but also of creating “inclusion without voice”<sup>9</sup> and exacerbating “exclusion by design.”<sup>10</sup>

This briefing picks up on these debates in the specific context of the risks of new identification systems for those who are, or may be, stateless. It argues that **inclusion or exclusion is not the correct metric to measure whether a digital ID system is beneficial to those who previously lacked identity documents.** The simple fact of inclusion in a new identity register does not address, and may in fact worsen, the status of people whose nationality<sup>11</sup> is denied or in question. Without specific measures to ensure that nationality is recognized or granted, whether by the state of residence or another state, new identification systems will generally replicate or intensify existing patterns of exclusion.<sup>12</sup>

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1 ID4D, “Inclusive and Trusted Digital ID Can Unlock Opportunities for the World’s Most Vulnerable.” See also World Bank, *Principles on Identification for Sustainable Development*.

2 USAID, *Identity in a Digital Age: Infrastructure for Inclusive Development*.

3 Singh, “Digital IDs Are an Effective Tool against Poverty. A Global Solution Is Making Them Available to Millions.”

4 McKinsey & Company, *Digital ID: A Key to Inclusive Growth*.

5 Women in Identity, “Women in Identity Launch Code of Conduct Project, Challenging Digital Identity Teams to Create More Inclusive Solutions.”

6 Burgess, “Ethical and Inclusive Digital Identity.”

7 UN, “Sustainable Development Goal 16.”

8 Cioffi, “Beyond Mitigation.”

9 Farhat, “Paving a Digital Road to Hell?”

10 Access Now, “The Digital ID Toolkit.” See also Engine Room, *Digital IDs Rooted in Justice*.

11 In international law, a synonym for citizenship. Terms used at national level vary across different legal systems.

12 Manby, “The Sustainable Development Goals and ‘Legal Identity for All.’”

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## What is statelessness and who is stateless?

To understand the potential impact of new identification systems on stateless persons and those at risk of statelessness, it is first necessary to understand who is “stateless.” This is not necessarily obvious. The official definition of a stateless person in international law is “a person who is not considered as a national by any state under the operation of its law.”<sup>13</sup> There is a large literature discussing the detailed content of this apparently simple definition.<sup>14</sup> For international policy purposes, UNHCR guidance notes that statelessness is a “mixed question of fact and law.”<sup>15</sup> The starting point to determine whether a particular individual is stateless is of course the law of the different states that might be relevant as they apply to the facts of that individual’s place and date of birth, parents, and residence. These laws include not only the main nationality law, but also laws on civil registration, identification, and the recognition of family relations. It is also necessary to establish whether the person can provide the evidence necessary to prove those facts to the satisfaction of the competent authorities.

UNHCR distinguishes between two main groups of stateless persons: those who are “in a migratory context,” that is, living in a country where they were not born and do not have long-term connections; and those who are living “in situ” in what may be considered their “own country” because of their very strong connections to that state. The majority of stateless people globally are living in the country of their birth and lifelong residence—in their “own country.”<sup>16</sup> Despite this fact, they may in practice be treated by that state as irregular migrants, whether because of their inability to provide evidence of the facts entitling them to nationality, or because the law provides no rights to nationality of any kind based on birth in the territory, even over multiple generations. This status has serious consequences for their access to rights and services.

The “mixed” nature of statelessness means, however, that there is a large category of people whose status as “stateless” or “not stateless” is unclear. Not all stateless people lack identity documents; they hold documents of different kinds, but none that recognize nationality. And not all people without identity documents are stateless; with assistance, they can confirm nationality and acquire the necessary documents. While there are known risk factors that make statelessness more likely—in general, related to perceptions (whether rooted in reality or not) that an individual or group is of “foreign” origin—it is very often not possible to determine without further inquiry whether any particular person who lacks an identity document recognizing nationality is, in fact, stateless.

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13 Article 1(1), Convention Relating to the Status of Stateless Persons.

14 Summarized in Manby, “Schrödinger’s Citizenship: Framing Perspectives for the Resolution of Statelessness.”

15 UNHCR, “Handbook on Protection of Stateless Persons.”

16 See the discussion of the meaning of a person’s “own country” in UN Human Rights Committee, “CCPR General Comment No. 27.”

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## Providing proof of legal identity to those without existing documents

The Agenda for Sustainable Development and its SDGs, adopted by consensus resolution of the UN General Assembly in 2015, established the overall commitment of the global community to “leave no one behind” in access to the benefits of development. Considering the impact of this commitment on the implementation of identification initiatives, there are at least three possible approaches to the issue of a document (or other identity token confirming registration) that would enable people currently lacking the required identity documents to access rights and essential services.

### Functional identity

The first approach is to provide access to services on the basis of a “functional ID” specific to each task, whether issued locally (e.g., a health clinic card issued to anyone using the service), or nationally (e.g., registers maintained for elections, driving licenses, tax payment, or food rations). Functional identity systems have been commonly used historically, especially—but not only—in countries without a national identity register, or where enrollment in a national identity register is very incomplete.

### Central registration without proof of legal status

The second approach is to register all those born or resident in a territory without distinction, and accept that registration as proof of identity and permission to access at least basic rights and services, without additional proof of nationality or legal immigration status. This form of registration is the model for most birth registration systems, supported by decades of work by UN agencies (notably UNICEF and UNSTATS) and by SDG 16.9, “to provide legal identity for all, including birth registration.” This approach was also the original vision for India’s Aadhaar biometric registration system, which inspired a number of other new systems in nations where historical rates of birth registration have been very low (for example, Nigeria and Ethiopia).<sup>17</sup>

This approach avoids the cost of repeat registration in different systems required by the use of multiple types of functional ID, as well as the challenges of determining legal status in the context of low rates of existing documentation. It also has an appealing simplicity compared to traditional civil registration systems. Biometric registration provides the robust proof of uniqueness necessary for the digital economy and desirable for tasks such as deduplication of benefit recipients.

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<sup>17</sup> Pilling, “India Points the Way to Digital Access across Africa.”

But this approach also creates substantial risks for data protection and privacy, and may simply enable surveillance while providing no access to rights.<sup>18</sup> Moreover, as the Aadhaar experiment has shown, if registration is sufficient to provide entitlement to certain benefits, it will swiftly become a proxy for recognition of citizenship.<sup>19</sup>

## Proof of legal status

National identification registers in a majority of countries (especially in the civil law tradition) record a person's legal status in the country, including nationality or other legal residence status. The majority of new digital identification systems have maintained this model (with or without a parallel digital layer), meaning that the question of proof of nationality and legal status are central to the registration process. If this is the case, then the status recorded in the register determines the impact of the identification system on “inclusivity” in practice.

If states are no longer willing to accept locally issued functional ID documents for access to services, there is no shortcut that avoids the need, during a rollout of a new identification system, to determine the status of those whose status is currently uncertain. Mis-registration can cause serious harms, even if legal residence is still supported.<sup>20</sup>

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## Systems needed to determine the legal status of undocumented persons

How, then, to develop an ID system that would be “inclusive” for stateless people and those at risk of statelessness (because of perceptions of foreignness) in more than the most limited (and in practice exclusionary) way?

### Identify and issue identity documents to stateless people

One approach could be to issue identity documents with the status of stateless person (or some other status that is not that of a national, but that does confirm legal residence and provide access to some rights and services).<sup>21</sup> At first sight, this approach is logical. It is, after all, the system established for refugees, and there are contemporary efforts to integrate

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<sup>18</sup> Masiero, *Unfair ID*.

<sup>19</sup> Masiero and Shakthi, “Grappling with Aadhaar”; Jha and Chakrabarty, “The Production of a ‘Digital Citizen.’”

<sup>20</sup> Weitzberg, “Keeping People out of Camps.”

<sup>21</sup> Manby, *Identification in the Context of Forced Displacement: Identification for Development*.

refugee registration systems into national digital population registries.<sup>22</sup> There are concerns about this approach (for example, around data sharing), but this form of inclusion can also have a powerful positive effect.<sup>23</sup>

However, there are very few countries in the world that have a procedure to determine whether a person is stateless and provide similar protection and access to services to that given to refugees.<sup>24</sup> Therefore, the vast majority of stateless people are not recognized as “stateless persons”; they simply face denial of nationality from any country where they might have a claim to recognition. There is, moreover, the risk that the status of “stateless person” may itself become a long-term (even inheritable) second-class legal status in the country—unless paired with a certain route to acquisition of nationality.

So the core problem is not one of issuing identity documents to stateless persons, but ensuring that processes exist to resolve the status of those residents whose nationality is questioned.

## **Ensure universal birth registration and strengthen civil registration generally**

The most important starting point for resolution of nationality status (whether of the country of residence, or another country) is the legal recognition of the elements of identity that are relevant for acquisition of nationality at birth—that is, place and date of birth, and identity of the parents. Most nationality laws require these elements of identity to be established through the civil registration system: starting with registration of birth, but in some contexts also the marital status of the parents, or recognition of non-biological parents, including through adoption.

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22 “As States increasingly develop digital identity systems, UNHCR must consider how PRIMES should evolve to work as part of the host State’s digital ecosystem, for example, by interoperability with host States’ digital identity systems where an appropriate enabling environment is in place. In this context, where no ‘one size will fit all’, multiple technical solutions will be required within a standards-based framework. In some contexts, in order to meet the objectives of the GCR, UNHCR may be required to undertake the role of a provider of legal or foundational identity or a trusted digital identity provider, as part of the host State’s digital identity ecosystem and regulatory environment.” UNHCR, “Global Virtual Summit on Digital Identity for Refugees, Concluding Workshop: Summary Conclusions and Recommendations,” 7.

23 Atem, “A Symbol of Hope: The Impact of Biometric ID Cards on Refugees in Cameroon.”

24 UNHCR, “Handbook on Protection of Stateless Persons”; UNHCR, *Good Practices Paper – Action 6*. For European countries see the [European Network on Statelessness index](#).

## Design due process into adult identification systems

The key procedural elements to make new identification systems operate to include rather than exclude are to ensure that a person without the correct documentation is not simply sent away from a service desk, but assisted to resolve their status and determine their nationality, including referral systems, legal and paralegal assistance, acceptance of alternative forms of evidence if civil registration documents are not available, and the right of appeal to independent oversight mechanisms and the courts.

## Minimum legal standards

Universal birth registration and better procedures should, in principle, resolve or prevent statelessness in the majority of cases. However, there are some people for whom it will not be possible to establish an existing nationality, or who are not able to acquire nationality on application, because the legislation governing nationality does not permit it.<sup>25</sup> In these cases, legal reform is needed to grant nationality to those born or resident in the country who have no provable claim to a nationality in any other state. UNHCR has extensive guidance on these minimum protections.<sup>26</sup>

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<sup>25</sup> Manby, "Legal Identity for All" and Statelessness."

<sup>26</sup> UNHCR, "Handbook on Protection of Stateless Persons"; UNHCR, "Guidelines on Statelessness No. 4."

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## Digital solutions to the ID gap for stateless people

These solutions are all fundamentally analog: independent of the technology used for registration of identity. However, there are some digital solutions that could potentially assist stateless persons, especially in the realm of functional ID.

### Designing ICT pathways to prompt solutions

The establishment of new software platforms for the management of identification provides opportunities to prompt resolution rather than rejection of applications for identity documents by those without the “feeder” documents generally required for registration in the new system. Decision pathways could ensure that a file cannot be closed until these processes are completed, could enable reasons for decisions to be recorded at each stage, and could prompt referrals to legal assistance or administrative review. The system should enable statistics to be generated on the reasons for lack of initial acceptance of an application and how it was resolved.

### Digital wallets

“Digital wallets” enable a person to reveal only those elements of an identity that are relevant to the specific task in hand, whether age, educational or professional qualifications, vaccination status, or employment, thus avoiding the need for an identity document that records nationality where that is not relevant. Digital versions of functional ID systems are increasingly designed to sidestep lack of existing proof of legal identity, for example, to support direct cash transfers during the COVID pandemic<sup>27</sup> and to provide other forms of assistance to displaced persons and migrants.<sup>28</sup>

Nonetheless, such technological advances do not necessarily escape existing institutional patterns of inclusion and exclusion.<sup>29</sup> Digital wallets are helpful only for those in possession of a smartphone<sup>30</sup>; in practice, access may in fact be restricted to those who already have a government-recognized legal status.<sup>31</sup>

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27 Uña et al., “Digital Solutions for Direct Cash Transfers in the COVID-19 Crisis”; Ugo, “Cash Transfers in Pandemic Times.”

28 IFRC, *Digital Identity: Enabling Dignified Access to Humanitarian Services in Migration*; IFRC, *Digital Identity: An Analysis for the Humanitarian Sector*.

29 Schoemaker et al., “Digital Identity and Inclusion.”

30 However, there are some interesting experiments to avoid such barriers. For example, in a pilot project by the Red Cross in Kenya, those without a smartphone are issued a printed QR code that can be used to withdraw cash. DIGiD Consortium, “Digital Wallet.”

31 Weitzberg, “The Digital Identity Wallet.”

## Mobilize technical standards to address these issues

There are already substantial efforts to develop normative frameworks for identity governance that would support the objectives set out in this brief.<sup>32</sup> In general, however, discussions of the standards applicable to digital ID among government and private sector actors focus much more on technical standards than on governance standards.<sup>33</sup> These two discussions must be integrated.

A focus on “inclusiveness” during the introduction of digital identity technologies can potentially address some of the practical barriers faced by stateless people in accessing services. For example, the W3C Verifiable Credentials Data Model v2.0 and related standards provide technical architectures that could enable privacy-preserving approaches to functional ID, allowing stateless individuals to prove specific attributes—such as age, educational qualifications, or vaccination status—without revealing nationality where irrelevant.<sup>34</sup> The European Digital Identity Wallet framework demonstrates how interoperable standards can facilitate cross-border recognition of credentials, potentially reducing the documentary barriers that often exclude stateless people from services.<sup>35</sup> However, as the OpenID Foundation’s Human-Centric Digital Identity framework acknowledges, these technological advances risk replicating existing patterns of exclusion unless explicitly designed with vulnerable populations in mind, requiring “values-based trade-off decisions and risk mitigation strategies” that prioritize human rights over administrative efficiency.<sup>36</sup>

The path forward requires integrating technical standards development with governance frameworks that address the institutional roots of statelessness-related exclusion. Digital identity standards bodies should incorporate statelessness considerations into technical specifications, ensuring that systems can accommodate alternative credential issuers beyond nation states—such as UNHCR’s exploration of blockchain-based identity systems for refugees<sup>37</sup>—and build into the system decision-trees the kind of referral pathways and due process mechanisms outlined above. Trust frameworks must explicitly address how to establish trust relationships for credentials issued to those whose nationality status is unresolved, building on initiatives like the Open Identity Exchange’s work on cross-framework interoperability.<sup>38</sup>

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32 Among these are UNDP’s Digital ID Governance Framework and Universal DPI Safeguards framework, and the Recommendation of the OECD Council on the Governance of Digital Identity, OECD/LEGAL/O491.

33 Manby, “The Governance of Digital Public Infrastructure.”

34 World Wide Web Consortium, “Verifiable Credentials Data Model v2.0.”

35 Regulation (EU) 2024/1183 of the European Parliament and of the Council of 11 April 2024 amending Regulation (EU) No 910/2014 as regards establishing the European Digital Identity Framework (European Digital Identity (EUDI) Regulation).

36 OpenID Foundation, *Human-Centric Digital Identity: For Government Officials*.

37 Burt, “UNHCR Embraces Blockchain, Zero-Knowledge Proofs to Improve Aid Systems.”

38 Open Identity Exchange, “A Guide to Trust Frameworks for Smart Digital ID.”

Most critically, the implementation of digital identity systems must be accompanied by the legal and institutional reforms necessary to resolve nationality status: strengthened civil registration, due process in identity determination, and legislative frameworks that provide pathways to nationality for long-term stateless residents.

Without this integration of technical innovation with fundamental legal reform, digital identity systems risk becoming sophisticated tools for perpetuating rather than resolving the exclusion of stateless people. No technology can resolve the fundamental challenge of nationality determination that lies at the heart of statelessness. As with other forms of exclusion, technological solutions do not fix structural problems.

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