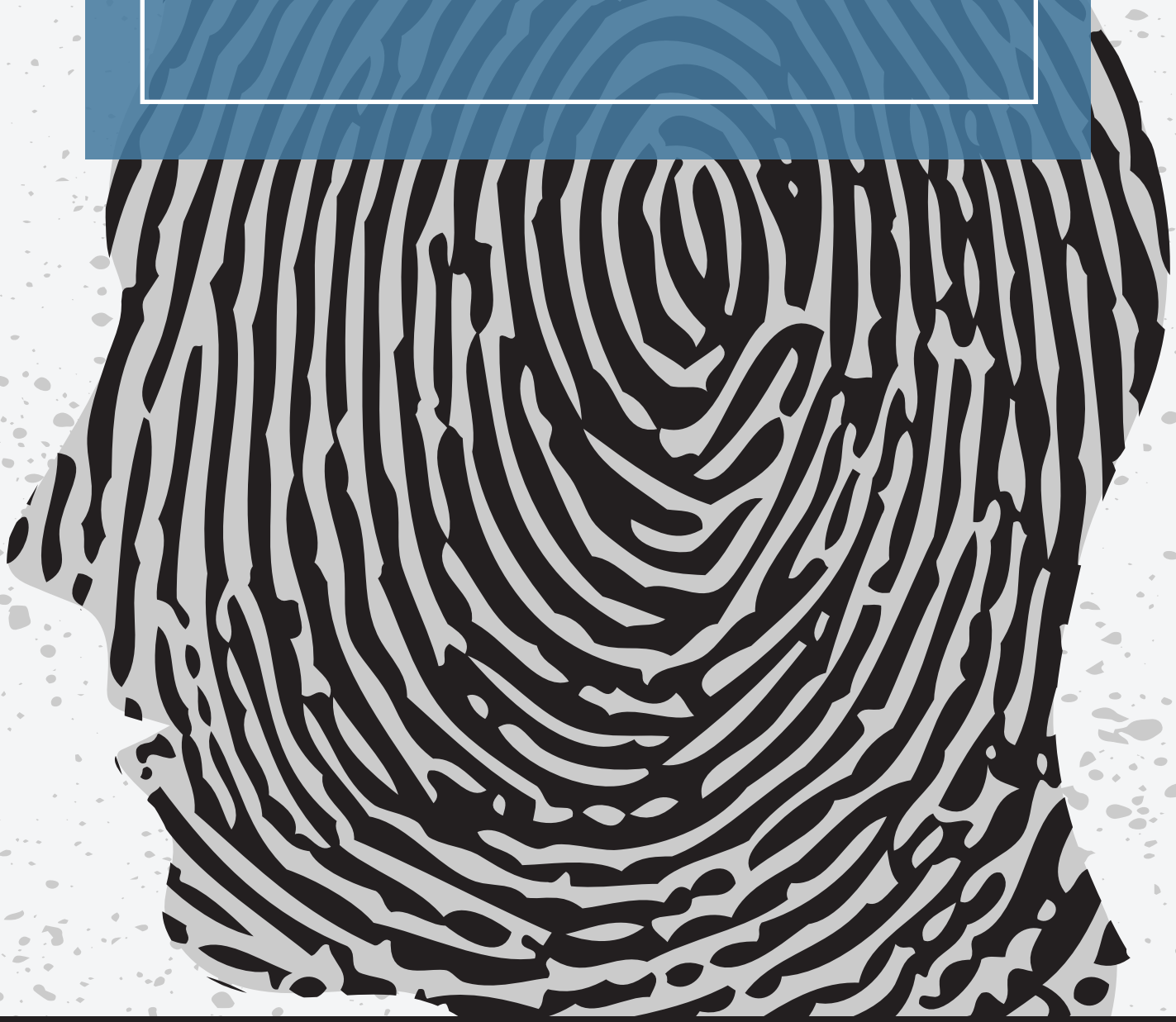
Paving a Digital Road to Hell?

A Primer on the Role of the World Bank and Global Networks in Promoting Digital ID



CENTER FOR
HUMAN RIGHTS &
GLOBAL JUSTICE
NYU SCHOOL OF LAW

Paving a Digital Road to Hell?

A Primer on the Role of the World Bank and Global Networks in Promoting Digital ID

Digital Welfare State and Human Rights Project
Center for Human Rights and Global Justice
NYU School of Law

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This primer has been informed by our ongoing work on digital ID systems and builds on the extensive work of many experts in this field. To develop this primer, we reviewed relevant primary and secondary literature, including international organization financing agreements, operational documents, and reports. We also spoke with over 50 experts working in fields related to digital ID, including human rights activists, academic researchers across several disciplines, and staff members of international organizations, including the World Bank.

A previous version of this document was shared with staff at the Identification for Development (ID4D) Initiative of the World Bank, who generously provided extensive comments and feedback, which we have taken into account in this primer. The ID4D team's responses to an earlier draft are included in this document as an Annex.

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FOREWORD: WHY THIS PRIMER AND CALL TO ACTION?

The Digital Welfare State and Human Rights Project originally emerged from our support of the mandate of the United Nations Special Rapporteur on extreme poverty and human rights. The initial focus was on the digital transformation of welfare states in the Global North, including in the United States and United Kingdom.[1] However, during the preparation of the 2019 Special Rapporteur's report to the UN General Assembly on digital welfare states,[2] many practitioners and academic experts drew our attention to a specific model of digital identification systems, frequently with biometric components (digital ID systems), which is being deployed by national governments in the Global South. Recognizing that these systems raise major human rights concerns that go far beyond the realm of Northern welfare states, we have spent the past few years increasingly engaged in national and international debates on digital ID.

Systems of registration and identification, including biometric systems, have of course existed for hundreds of years and can be found on every continent.[3] This primer focuses on digitalized systems introduced following both the surge of digitization and digitalization of administrative systems which began in the 1970s, as well as the proliferation of digitized biometrics that occurred during the 1990s.[4] Moreover, following the events of September 11, 2001, the biometrics industry grew rapidly, particularly as new markets and opportunities emerged in the areas of policing, border control, intelligence,[5] refugee management, and elections.[6] Our focus is therefore firmly on so-called '21st century systems.' There are now many examples of such systems. A 2015 World Bank benchmarking study found that the majority of countries had used at least one form of digital ID system, and only 8% of countries had no digitalized ID system at all.[7] More specifically, this primer focuses on the subset of digital ID systems that share one or more common characteristics,[8] in that they: i) are considered to be foundational and have interoperability and integration capabilities to fulfill multiple different uses, ii) collect and analyze digital, biometric information to establish uniqueness, iii) can serve as a single source of truth on

[1] Report of the Special Rapporteur on extreme poverty and human rights on his mission to the United States of America, May 4, 2018, A/HRC/38/33/Add.1, https://documents-dds-ny.un.org/doc/UNDOC/GEN/G18/125/30/PDF/G1812530.pdf?OpenElement; Report of the Special Rapporteur on extreme poverty and human rights on his mission to the United Kingdom, April 23, 2019, A/HRC/41/39/Add.1, https://documents-dds-ny.un.org/doc/UNDOC/GEN/G19/112/13/PDF/G1911213.pdf?OpenElement.

[2] Report of the Special Rapporteur on extreme poverty and human rights on the digital welfare state, A/74/48037, October 11, 2019, https://www.ohchr.org/Documents/Issues/Poverty/A_74_48037_AdvanceUneditedVersion.docx.

[3] Jane Caplan and John Torpey, *Documenting Individual Identity: The Development of State Practices in the Modern World* (Princeton University Press, 2001); Simon Szreter and Keith Breckenridge, "Introduction," in *Recognition and Registration: The Infrastructure of Personhood in World History* (British Academy, 2012), https://britishacademy.universitypressscholarship.com/view/10.5871/bacad/9780197265314.001.0001/upso-9780197265314-chapter-1.

[4] Shoshana Amielle Magnet, "Introduction," in *When Biometrics Fail: Gender, Race, and the Technology of Identity* (Duke University Press, 2011), 9.Magnet, 9.

[5] There was also significant interest in developing a national IDs in the US at the time, see Magnet, "Introduction," 9–10; Clare Sullivan, "Digital Identity – From Emergent Legal Concept to New Reality," *Computer Law & Security Review* 34, no. 4 (August 2018): 723–31, https://doi.org/10.1016/j.clsr.2018.05.015.

[6] Gus Hosein and Carly Nyst, "Aiding Surveillance: An Exploration of How Development and Humanitarian Aid Initiatives Are Enabling Surveillance in Developing Countries," *SSRN Electronic Journal*, 2013, 5–10, https://doi.org/10.2139/ssrn.2326229.

[7] World Bank, "Identification for Development (ID4D) Integration Approach Study" (Washington, DC: World Bank Group, 2015), 10.

[8] Many systems championed by the Bank have the characteristics of uniqueness, interoperability and integration, digitalization, and authentication. *See, e.g.,* World Bank, "Public Sector Savings and Revenue from Identification Systems: Opportunities and Constraint" (Washington, DC: World Bank Group, 2018), 5, http://documents.worldbank.org/curated/en/745871522848339938/pdf/Public-Sector-Savings-and-Revenue-from-Identification-Systems-Opportunities-and-Constraints.pdf. This list is also derived from World Bank, "ID4D Practitioner's Guide: Version 1.0" (Washington, DC: World Bank Group, 2019), 12–14.

identification, often through the use of a single database or single authoritative source, iv) have analytic capabilities to sort and classify data, and v) use electronic credentials, such as machine-readable cards, numbers, or apps, for remote authentication.

Our experience, both in implementing the mandate of a UN independent expert and at the Center for Human Rights and Global Justice at New York University School of Law, has allowed us to collaborate with many experts and practitioners viewing these systems from different vantage points. Members of our project team have been directly involved in global policy discussions around digital ID, including public consultations and events with the World Bank and its Identification for Development (ID4D) Initiative as well as with other international organizations, governments, foundations, and private technology vendors.[9] We have jointly organized workshops with civil society organizations (CSOs) to discuss the implications of digital ID systems for human rights across the African continent. We have discussed related concerns with experts through our Transformer States conversation and blog series,[10] and have taught about these subjects in law school courses. In addition, we have partnered with national human rights organizations to research and challenge specific digital ID systems.[11]

We found that many of the experts and practitioners we engaged with shared our deep concerns around the dangers of digital ID systems for human rights. First, many of the systems studied and assessed have been linked to actual and prospective, serious and large-scale violations of human rights. Work from CSOs, academic researchers, journalists, and other experts has demonstrated that these violations often follow comparable patterns across different countries.

Second, similarities in legal and technological design and implementation are not coincidental, but rather are linked to efforts by a global network of digital ID promoters. This is because governments often rely on the same small group of international organizations, foundations, and technology vendors for strategic, conceptual, practical, and financial support to design or upgrade their national digital ID systems.

Third, apart from the work of a handful of highly motivated non-profit organizations, there is often a disconnect between the work of global human rights organizations and local activists around national digital ID systems. This has meant that efforts to resist harmful systems have remained siloed and often pay less attention to global dynamics.

Fourth and finally, systematic efforts to gather evidence of the impacts of digital ID systems are still underdeveloped, apart from some notable exceptions. While burdens are

[9] For instance, we co-hosted an event entitled *Digital ID for Inclusive Development?* at the Civil Society Policy Forum at the Annual Meetings of the IMF and World Bank in October 2021, recording available here: https://www.worldbank.org/en/events/2021/10/08/civil-society-policy-forum, and participated in consultations on the second edition of the *Principles on Identification for Sustainable Development*, see press release here: https://chrgj.org/2020/12/17/call-for-a-full-integration-of-human-rights-in-the-deployment-of-digital-identification-systems/. The organization ID4Africa hosted a three-part series on the "Dark Side of Digital ID," (in which we participated in November 2021) where critical voices were juxtaposed with industry representatives, https://id4africa.com/livecast-ep24-the-dark-side-of-identity-part-2/.

[10] Transformer States blogs and archived events can be found here: https://chrgj.org/focus-areas/technology/transformer-states/.

[11] *See, e.g.,* our work with partners in Uganda in a report published in June 2021 on the impact of the national digital ID system, *Chased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons* (2021), https://chrgj.org/wp-content/uploads/2021/06/CHRGJ-Report-Chased-Away-and-Left-to-Die.pdf. Drawing on the evidence in this report, a coalition of civil society organizations in Uganda, including our partners the Initiative for Social and Economic Rights (ISER), Unwanted Witness (UW), alongside the Health Equity and Policy Initiative (HEAPI), filed a lawsuit against the Government of Uganda on April 25, 2022, alleging that the national digital ID in Uganda, commonly known as Ndaga Muntu, has become an exclusionary barrier that violates women's right to health and older persons' right to social security. *See*, Center for Human Rights and Global Justice, Everyone Counts, https://chrgj.org/focus-areas/technology/everyone-counts-initiative/.

disproportionately placed on the human rights movement—or ecosystem[12]—to ascertain the 'facts on the ground' for systems promoted by global proponents like the World Bank, there is still a great deal of work that must be done to document precise human rights impacts.

In light of these concerns and considerations, we believe that there is an urgent need to reframe research and contestation of digital ID systems as a global matter. Since many initiatives are shaped and supported by a global network of powerful proponents, the only way to effectively counter this confluence of interests and ideas, and to change outcomes, is through an equally global effort by the entire human rights ecosystem. This includes not only organizations and individual experts working on digital rights, but also those working on poverty and social and economic rights, social justice, economic development, and many others within the broader ecosystem. Digital ID systems will, in many ways, determine the shape and form of digital governments and societies of the future. These are not marginal issues that should only be discussed and contested by those with technical expertise on biometrics or database design, but fundamental concerns that should be on the agenda of any individual or institution working on human rights and development.

Yet, we believe the digital ID debate can be an intimidating terrain to enter for those who have not yet familiarized themselves with the—often very technical—vocabulary and literature on these systems. Through our conversations, it seems that advocates and researchers, especially those new to these debates, could benefit from a carefully researched stocktaking exercise that provides a reference and starting point for actors seeking to plot strategy and action around digital IDs and the global forces driving them.

This document aims to contribute to this process of stocktaking. Standing on the shoulders of the excellent work of many others in this field, it aims to synthesize critiques and concerns. As part of this stocktaking, we believe that we must have a more clearly developed notion of 'who' are the most relevant actors driving this agenda and 'what' are the key concepts that should be contested and reimagined. Much can be learned about both the 'who' and 'what' by zooming in on the work of the World Bank Group (WBG, World Bank, Bank), and more specifically its ID4D Initiative, as a central node in a more extensive global network of digital ID promotion.

Of course, the World Bank is only one actor within a network of international organizations, foundations, consulting firms, governments, and other entities who are collectively shaping the future of digital ID systems. It would be reductive, unproductive, and simply inaccurate to assign moral or legal responsibility solely to this one institution for all of the human rights problems associated with establishing and operating national digital ID systems. That is certainly not the aim of this primer. But the Bank does play a unique role as a globally respected expert and advisor of governments on digital ID. It is also a clearinghouse for legitimate ideas on development, a platform for building formal and informal networks, and an important funder of development projects. By analyzing

[12] On perceiving of the field of human rights as an ecosystem, we have been inspired by our colleague at CHRGJ, César Rodríguez-Garavito, who argues that "instead of reinforcing the traditional boundaries of the field, human rights theory and practice must be expanded to include and open spaces for new actors, themes, and strategies that have emerged in the last two decades. To capture and maximize this diversity, I have suggested that the field should be understood as an ecosystem, rather than as a unified movement or institutional architecture." Rodríguez-Garavito, "Human Rights 2030: Existential Challenges and A New Paradigm for the Field," *NYU Law Public Law and Legal Theory Research Paper Series*, Working Paper No. 21–39 (June 30, 2021): 15, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3913306.

the work of the Bank, we can shine a light on key concepts, models, technologies, and actors that make up this broader network of those promoting a particular model of digital ID system.

This document also aims to contribute to the debate and actions that seek to ensure that digital ID systems align with the values and norms of human rights. Therefore, it is both a carefully researched primer as well as a call to action to all of those with an interest in safeguarding human rights to set their gaze more firmly on the multidimensional dangers associated with digital ID systems. It encourages these actors to ask: **what can we in the human rights ecosystem meaningfully do, individually and collectively, to ensure that digital ID systems enhance, rather than jeopardize, the enjoyment of human rights? Is this even possible through digital ID systems?**

EXECUTIVE SUMMARY

Governments around the world are designing or implementing digital identification systems, often with biometric components (digital ID). The spread of these systems is driven by a new development consensus which holds that digital ID can contribute to inclusive and sustainable development and is a prerequisite for the realization of human rights. But a specific model of digital ID is being promoted, which draws heavily on the Aadhaar system in India as a source of inspiration. Such digital ID systems aim to provide individuals with a 'transactional' or 'economic' identity, by establishing their uniqueness. The promise is that with such an economic identity, an individual can transact with both government and private sector actors. This will then improve access to public and private services, fuel economic growth, and contribute to the emergence of truly digital economies. Unlike traditional systems of civil registration, such as birth registration, this new model of economic identity commonly sidesteps difficult questions about the legal status of those it registers.

Many consider rapid and widescale deployment of such digital ID systems to be dangerous. Evidence is emerging from many countries around the world about actual and potential, often severe and large-scale, human rights violations linked to this model of digital ID. Such systems may exacerbate pre-existing forms of exclusion and discrimination in public and private services. The use of new technologies may lead to new forms of harm, including biometric exclusion, discrimination, and the many harms associated with surveillance capitalism.[13] Meanwhile, the promised benefits of such systems have not been convincingly proven. These dangerous digital ID systems may lead to "pain without gain."[14]

The World Bank, through its Identification for Development (ID4D) Initiative, has played a central part in the global promotion and support of this new model of digital ID systems. One important role it has played has been in manufacturing consensus in the newly framed field of 'identification for development.' By defining the problem as one of an 'invisible billion' who lack official identity, and presenting digital ID systems as inclusion and rights-enhancing solutions, it has provided legitimacy and a mandate for these systems. It has done this through extensive publications, technical assistance to governments, and knowledge exchanges—including through many opportunities to learn from the Aadhaar experience in India. Furthermore, over

[13] *See generally*, Shoshana Zuboff, *The Age of Surveillance Capitalism* (New York: PublicAffairs, 2017), https://www.publicaffairsbooks.com/titles/shoshana-zuboff/the-age-of-surveillance-capitalism/9781610395694/.
[14] Jean Drèze et al., "Aadhaar and Food Security in Jharkhand: Pain without Gain?," *Economic & Political Weekly*, December 16, 2017.

US$1.5 billion in Bank financing across 35 countries is now devoted to identification systems.[15] According to the Bank, this includes roughly US$390 million in supporting civil registration systems, approximately one quarter of investments. Governments in countries such as Nigeria, Mexico, the Philippines, and in West Africa, are receiving significant World Bank financing and support in the design and implementation of digital ID systems that represent this new economic paradigm.

But the World Bank is far from alone in supporting the 'identification for development' agenda. Though the Bank appears to play a critical and central role in the global promotion of these systems, a diverse network of actors, driven by different interests, has emerged to support this model of digital ID. This includes governments, foundations, vendors, and consulting firms. Despite surface references to human rights and development goals to legitimate these activities, serious engagement with human rights norms and values is currently almost completely lacking in this global network.

This document is not just a primer on dangerous digital ID systems and their promotion by the World Bank and the network. It is also a call to action to the global human rights ecosystem—including human rights organizations and other civil society organizations, experts, and activists. Given the severity of the actual and potential human rights violations arising from this model of digital ID, we are not merely sounding the alarm, but also reflecting on what can be done. This document therefore ends with practical suggestions for the human rights ecosystem, including how to ensure that future systems realize rather than violate rights.

[15] World Bank, "Identification for Development (ID4D) and Digitalizing G2P Payments (G2Px) Annual Report 2021" (Washington, DC: World Bank Group, 2021), 2.

INTRODUCTION

This document discusses a revolutionary and dangerous new approach to digital ID systems. Through the embrace of digital technologies, the World Bank and a broader global network of actors has been promoting a new paradigm for ID systems that prioritizes what we refer to as 'economic identity.' These systems focus on fueling digital transactions and transforming individuals into traceable data. They often ignore the ability of identification systems to recognize not only that an individual is unique, but that they have a legal status with associated rights. Still, proponents have cloaked this new paradigm in the language of human rights and inclusion, arguing that such systems will help to achieve multiple Sustainable Development Goals. Like physical roads, national digital identification systems with biometric components (digital ID systems) are presented as the public infrastructure of the digital future.[16] Yet these particular infrastructures have proven to be dangerous, having been linked to severe and large-scale human rights violations in a range of countries around the world, affecting social, civil, and political rights. The benefits, meanwhile, remain ill-defined and poorly documented. Indeed, those who stand to benefit the most may not be those "left behind," but a small group of companies and security-minded governments.[17] The World Bank and the network argue that investing in digital ID systems is paving the road to an equitable digital future. But, despite undoubted good intentions on the part of some, they may well be paving a digital road to hell.

Over the past decade, these digital ID systems have been consistently presented by proponents as game changers for development in the Global South and for the realization of human rights.[18] An influential 2013 paper claimed that "[f]ormal identification is a prerequisite for development in the modern world."[19] That same year, after hearing a presentation from Nandan Nilekani, the charismatic leader of the Aadhaar digital ID project in India, World Bank President Jim Kim[20] declared that Aadhaar could be a "poverty-killer" and encouraged Bank staff to "integrate this technology into a massive effort to scale up access to financial services."[21] At the 2014 Annual Meetings of the World Bank and International Monetary Fund (IMF), the Vice President for Global Practice Solutions at the Bank explicitly tied digital ID to human rights, saying: "Neither dignity nor rights are possible without an identity."[22]

[16] "Conceive ID and G2P payment systems as part of digital public infrastructure (DPI) and 'digital stacks': DPIs facilitate basic but widely useful functions at a societal scale, such as platforms for digital ID, digital payments, and data exchange." World Bank, 5.
[17] M.S. Sriram, "Public Investments and Private Profits," in *Dissent on Aadhaar: Big Data Meets Big Brother,* ed. Reetika Khera (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019), 201.
[18] *See, e.g.,* World Bank, "G20 Digital Identity Onboarding" (Washington, DC: World Bank Group, 2018), xiii, https://www.gpfi.org/sites/gpfi/files/documents/G20_Digital_Identity_Onboarding.pdf. ("A *unique, legal identity is necessary to allow all individuals to participate fully in society and the economy.*")
[19] Alan Gelb and Julia Clark, "Identification for Development: The Biometrics Revolution," *SSRN Electronic Journal*, 2013, 1, https://doi.org/10.2139/ssrn.2226594.
[20] World Bank, "How India's Unique ID System Is Changing Lives," *World Bank Blogs: Voices* (blog), April 30, 2013, https://blogs.worldbank.org/voices/how-indias-unique-id-system-changing-lives; Nandan Nilekani, "The Science of Delivering On-Line IDs for a Billion People: The Aadhaar Experience" (World Bank, April 24, 2013), https://www.worldbank.org/en/events/2013/04/24/the-science-of-delivering-on-line-ids-for-a-billion-people-the-aadhaar-experience.
[21] "Aadhaar to Help Eradicate Poverty, Says World Bank Chief Jim Yong Kim," *The Economic Times*, May 9, 2013, https://economictimes.indiatimes.com/news/politics-and-nation/aadhaar-to-help-eradicate-poverty-says-world-bank-chief-jim-yong-kim/articleshow/19964577.cms?from=mdr.
[22] World Bank Group, "Making Everyone Count: Identification for Development" (Washington, DC, October 10, 2014), https://doi.org/10/10/making-everyone-count-identification-for-development.

These are not necessarily novel ideas.[23] Two decades ago, the UNICEF research directorate published a digest on birth registration, concluding that "the value of birth registration as a fundamental human right continues to be overlooked."[24] Without strong civil registration systems, they wrote "it is virtually impossible to plan or implement effective development strategies." As early as 2008, legal identity was being discussed by the UN Commission on Legal Empowerment of the Poor as a critical component for improving access to justice,[25] and was also identified in 2013 by the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda as important for achieving the Sustainable Development Goals.[26]

What is new then? To start, the World Bank became more actively involved in framing identification as a priority area for development policy about a decade ago. Only in 2014, the World Bank set up an Identification for Development working group and started formulating "a bold initiative that aims at formulating a coherent cross-sectoral approach to civil registration and identification systems in client countries, in close coordination with other development agencies."[27] Also new is a focus by the Bank on 21st century solutions, including digital and biometric technologies.[28] As one of the Bank's early leaders on identification for development wrote, "[h]istorically, the concept of building a system of identity creation and sharing with multiple entities, across multiple geographies, with multiple requirements for data structures … was technically and financially not feasible. We are now at a point in time where we have Moore's Law reducing cost-access and advances in distributed secure networks, plus the emergence of artificial intelligence, altogether creating brand new, breakthrough technology-enabled models."[29] Finally, the Bank and its network have steered attention away from previous work on furthering development and human rights via Civil Registration and Vital Statistics (CRVS) systems, through emphasizing the need for 'foundational' digital ID systems.[30]

[23] For a historical review of identification systems, *see generally*, Caplan and Torpey, Documenting Individual Identity; Szreter and Breckenridge, "Introduction"; Keith Breckenridge, *Biometric State: The Global Politics of Identification and Surveillance in South Africa, 1850 to the Present* (Cambridge: Cambridge University Press, 2014), https://doi.org/10.1017/CBO9781139939546.

[24] UNICEF Innocenti Research Centre, 'Birth Registration: Right from the Start', Innocenti Digest, No. 9 (March 2002). Early work among international organizations on birth registration and legal identity was also done at Plan International, the Inter-American Development Bank, and the Asian Development Bank, for an overview see Bronwen Manby, "'Legal Identity For All' and Statelessness: Opportunity and Threat at the Junction of Public and Private International Law," *Statelessness & Citizenship Review*, 2020, 24.

[25] Commission on Legal Empowerment of the Poor and United Nations Development Programme, *Making the Law Work for Everyone* (New York: United Nations, 2008), 32–33.

[26] High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, "A New Global Partnership: Eradicate Poverty and Transform Economies Through Sustainable Development" (New York: United Nations, May 30, 2013), 50, https://www.post2020hlp.org/wp-content/uploads/docs/UN-Report.pdf.

[27] World Economic Forum, "Mariana Dahan - Agenda Contributor," World Economic Forum, accessed May 16, 2022, https://www.weforum.org/agenda/authors/mariana-dahan/.

[28] World Bank, "Identification for Development (ID4D) Integration Approach Study," 2.

[29] Mariana Dahan and John Edge, "The World Citizen: Transforming Statelessness into Global Citizenship," World Bank Blogs (blog), November 25, 2015, https://blogs.worldbank.org/digital-development/world-citizen-transforming-statelessness-global-citizenship.

[30] For further discussion of this, see Section 2.C.2.

In the process, the World Bank has carved out a niche for itself as a central node[31] in an emerging network of global actors promoting a new paradigm for digital ID systems. This network includes regional development banks, private companies, consulting firms, and many others. Critically, national governments have actively participated in becoming testing grounds for new models of digital ID.[32] Within this network, the ID4D Initiative has adopted a variety of roles including idea generator, data collector, convenor, and trusted advisor to national governments. The consensus cultivated through all of these activities seems to rest on an assumption that digital ID systems that are deeply integrated with public and private transactions will be transformative in advancing economic development, furthering inclusion, and laying the foundations for thriving digital societies. This agenda, including its key concepts, models, technologies, and actors, merits further scrutiny—especially in light of the deeply disturbing evidence of human rights harms tied to digital ID systems.

A. Assessing the Human Rights Harms and Benefits of Digital ID Systems: Where is the Evidence?

Three key concepts are core to digital identification systems:

- **Identification:** the process of establishing information about an individual.
- **Authentication:** the process of asserting an identity previously established during identification. Typically, this involves presenting or using an authentication credential, which was linked to the identity during identification, to demonstrate that the individual owns and is in control of the digital identity being asserted.
- **Authorization:** this is the process of determining which actions may be performed or services accessed on the basis of the asserted and authenticated identity.[33]

[31] The ID4D Initiative has been acknowledged by other actors as playing a central role. *See, e.g.,* UK Department for International Development, "Financial Case," September 27, 2019: 10; ("Since its inception in 2014, ID4D has become a powerful voice for building inclusive and trusted ID and civil registration systems in service of development. The deep and cross-cutting knowledge base developed over the past few years is now being applied to support the implementation of these systems across the globe. ID4D is providing technical assistance to support to over 35 governments and a regional institutions, and the WBG has ring-fenced nearly US$1 billion to finance the implementation of ID and civil registration systems, including co-financing (as is the case in Nigeria with a programme under preparation with co-financing by France and the European Investment Bank). [...] ID4D has established partnerships with other key international organisations and institutions working in this area, including the UN's POLIA 'Partnership on Legal Identity for All' and UNICEF.") *See also* Omidyar Network, "Why We Invested: World Bank Group Identification for Development (ID4D) Multi-Donor Trust Fund," *Omidyar Network* (blog), December 12, 2017, https://medium.com/omidyar-network/why-we-invested-world-bank-identification-for-development-id4d-multi-donor-trust-fund-b404d1c287cb.

[32] *See, e.g.,* World Bank, "Project Appraisal Document: Nigeria Digital Identification for Development Project (P167183)," January 30, 2020, https://documents1.worldbank.org/curated/en/250181582340455479/pdf/Nigeria-Digital-Identification-for-Development-Project.pdf; World Bank, "Project Appraisal Document: Mexico National Digital Identity System to Facilitate Inclusion (P172647)," December 18, 2020, https://documents1.worldbank.org/curated/en/657131611543704157/pdf/Mexico-National-Digital-Identity-System-to-Facilitate-Inclusion-Project.pdf; Chris Burt, "Somalia Launching Foundational Biometric Identity Program," *Biometric Update*, July 10, 2018, https://www.biometricupdate.com/201807/somalia-launching-foundational-biometric-identity-program.

[33] Adapted from Carly Nyst et al., "Digital Identity: Issue Analysis" (Guildford, UK: Consult Hyperion, June 8, 2016), 25–27, https://chyp.com/wp-content/uploads/2020/06/PRJ.1578-Digital-Identity-Issue-Analysis-Report-v1_6-1.pdf. This report was sponsored by Omidyar Network.

One thing is clear about digital ID systems: they can lead to serious human rights problems and are prone to implementation failure. Even those promoting the identification for development agenda acknowledge these significant risks.[34] However, the gathering of evidence and monitoring of human rights impacts remains sorely lacking. Documenting these impacts has often fallen to activists, journalists, and researchers—including our own project.[35] In India, the significant impacts of Aadhaar on people living in poverty only became known through the efforts of scholars, journalists, and civil society organizations.[36] This patchwork of evidence has shown that digital ID systems can lead to a wide range of urgent human rights issues, including but not limited to: the violation of the right to nationality;[37] limiting access to health care,[38] food,[39] and social security;[40] a multitude of concerns about

[34] Several key exclusion risks posed by identification systems are consistently acknowledged by ID4D throughout their documentation, *see, e.g.,* World Bank, "Project Appraisal Document: Nigeria Digital Identification for Development Project (P167183)," 108–10.

[35] *See, e.g.,* our work with partners in Uganda in a report published in June 2021 on the impact of Uganda's national digital ID system, Center for Human Rights and Global Justice, Initiative for Social and Economic Rights, and Unwanted Witness, "Chased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons," June 2021, https://chrgj.org/wp-content/uploads/2021/06/CHRGJ-Report-Chased-Away-and-Left-to-Die.pdf.

[36] For an overview of some of these concerns, see Reetika Khera, *Dissent on Aadhaar: Big Data Meets Big Brother* (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019), https://www.amazon.co.uk/Dissent-Aadhaar-Data-Meets-Brother/dp/9352875427.

[37] Eve Hayes de Kalaf, *Legal Identity, Race and Belonging in the Dominican Republic* (London and New York: Anthem Press, 2022), https://anthempress.com/legal-identity-race-and-belonging-in-the-dominican-republic-hb; Christoph Sperfeldt, "Legal Identity in the Sustainable Development Agenda: Actors, Perspectives and Trends in an Emerging Field of Research," *The International Journal of Human Rights* 26, no. 2 (February 7, 2022): 217–38, https://doi.org/10.1080/13642987.2021.1913409; Haki na Sheria Initiative, "Biometric Purgatory: How the Double Registration of Vulnerable Kenyan Citizens in the UNHCR Database Left Them at Risk of Statelessness," 2021; Bronwen Manby, "The Sustainable Development Goals and 'Legal Identity for All': 'First, Do No Harm,'" *World Development* 139 (March 2021): 105343, https://doi.org/10.1016/j.worlddev.2020.105343; "Old Laws and Red Tape Leave Thousands Stateless in Zimbabwe," *The Economist*, April 24, 2021, https://www.economist.com/middle-east-and-africa/2021/04/24/old-laws-and-red-tape-leave-thousands-stateless-in-zimbabwe?utm_campaign=editorial-social&utm_medium=social-organic&utm_source=twitter; Grace Mutung'u and Isaac Rutenberg, "Digital ID and Risk of Statelessness," *Statelessness & Citizenship Review*, December 21, 2020, 348–54, https://doi.org/10.35715/SCR2002.1111; Silvia Masiero, "A New Layer of Exclusion? Assam, Aadhaar and the NRC," *South Asia @ LSE* (blog), September 12, 2019, https://blogs.lse.ac.uk/southasia/2019/09/12/a-new-layer-of-exclusion-assam-aadhaar-and-the-nrc/; Thomas McGee, "The Stateless Kurds of Syria: Ethnic Identity and National I.D.," *Tilburg Law Review (Gaunt)* 19, no. Issues 1-2 (2014): 171–81, https://heinonline.org/HOL/P?h=hein.journals/tiflr19&i=175.

[38] Center for Human Rights and Global Justice, Initiative for Social and Economic Rights, and Unwanted Witness, "Chased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons"; Rina Chandran, "Fears of Vaccine Exclusion as India Uses Digital ID, Facial Recognition," *Reuters*, April 15, 2021, https://www.reuters.com/article/us-india-health-coronavirus-trfn-idUSKBN2C217V; Anumeha Yadav and Menaka Rao, "Despite Glitches, Government Plans to Introduce Aadhaar Authentication at Health Centers," *Scroll.In*, October 12, 2016, http://scroll.in/pulse/818515/after-ration-shops-government-plans-to-start-aadhaar-authentication-at-health-centers.

[39] Nazar Khalid, "Aadhaar, Biometrics, and the PDS in Jharkhand," *Ideas For India* (blog), accessed January 11, 2022, http://www.ideasforindia.in/topics/poverty-inequality/aadhaar-biometrics-and-the-pds-in-jharkhand.html; Karthik Muralidharan, Paul Niehaus, and Sandip Sukhtankar, "Identity Verification Standards in Welfare Programs: Experimental Evidence from India," *NBER Working Paper Series* Working Paper 26744 (February 2020), https://doi.org/10.3386/w26744; Silvia Masiero and Amit Prakash, "ICT in Social Protection Schemes: Deinstitutionalising Subsidy-Based Welfare Programmes," *Information Technology & People* 33, no. 4 (December 6, 2019): 1255–80, https://doi.org/10.1108/ITP-02-2018-0086; Jean Drèze et al., "Aadhaar and Food Security in Jharkhand: Pain without Gain?"

[40] Center for Human Rights and Global Justice, Initiative for Social and Economic Rights, and Unwanted Witness, "Chased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons"; Reetika Khera, "Impact of Aadhaar on Welfare Programmes," in *Dissent on Aadhaar: Big Data Meets Big Brother*, ed. Reetika Khera (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019).

privacy and data protection,[41] surveillance,[42] and cybersecurity;[43] and fundamental changes to models of democracy, participation, and citizen-state relationships.[44] The human rights consequences can be severe and irreversible. In India, for instance, exclusion from the Aadhaar system has resulted in numerous starvation deaths and countless other examples of deprivation, exclusion, and harm.[45]

Some of these negative impacts are not necessarily linked to the *digital* aspects of such systems, but instead are manifestations of underlying dynamics of social exclusion, economic inequality, and marginalization. Any form of identification system has the potential to be used in beneficial and harmful ways. Digitalized identification systems may alter or augment these effects and can also reverse hard-won progress on human rights. Still other negative impacts appear to result directly from the introduction of new digital technologies and new forms of ID system design and implementation. This includes the use of digitized biometrics, as well as the concentration or centralization of data to be used in platforms for public and private use. At the most basic level, for instance, the widespread use of biometrics creates new dependencies on Information and Communications Technology (ICT) and electrical infrastructures, which may often be lacking.[46] Many new or upgraded digital systems are also designed in ways that encourage function creep, as they are intended to be used for multiple purposes that are unforeseen when the system is first designed. This means that harm can quickly spread and intensify, as digital ID systems become insurmountable barriers to a wide range of services and rights.

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[41] Hamza Waqas and Amna Khan, "Privacy and Digital Identity: The Case of Pakistan's NADRA," OpenGlobalRights (blog), February 4, 2022, https://www.openglobalrights.org/privacy-and-digital-identity-the-case-of-pakistans-nadra/; Ana Beduschi, "Rethinking Digital Identity for Post-COVID-19 Societies: Data Privacy and Human Rights Considerations," *Data & Policy* 3 (2021), https://doi.org/10.1017/dap.2021.15; Jay Stanley, "Digital IDs Might Sound Like a Good Idea, But They Could Be a Privacy Nightmare," *American Civil Liberties Union* (blog), May 17, 2021, https://www.aclu.org/news/privacy-technology/digital-ids-might-sound-like-a-good-idea-but-they-could-be-a-privacy-nightmare; "Kenyan Court Ruling on Huduma Namba Identity System: The Good, the Bad and the Lessons," *Privacy International* (blog), February 21, 2020, http://privacyinternational.org/long-read/3373/kenyan-court-ruling-huduma-namba-identity-system-good-bad-and-lessons; techeconomy, "Data Privacy: See What Court Told NIMC Due to Paradigm Initiative's Case against Commission," *TechEconomy*, July 29, 2019, https://techeconomy.ng/2019/07/data-privacy-see-what-court-told-nimc-due-to-paradigm-initiatives-case-against-commission/.

[42] Hosein and Nyst, "Aiding Surveillance"; Silvia Masiero and Viktor Arvidsson, "Degenerative Outcomes of Digital Identity Platforms for Development," *Information Systems Journal* 31, no. 6 (2021): 903–28, https://doi.org/10.1111/isj.12351; Mizue Aizeki and Rashida Richardson, "Smart-City Digital ID Projects Reinforcing Inequality and Increasing Surveillance through Corporate 'Solutions'" (New York: Immigrant Defense Project, December 2021).

[43] The Record, "Hacker Steals Government ID Database for Argentina's Entire Population," *The Record by Recorded Future*, October 18, 2021, https://therecord.media/hacker-steals-government-id-database-for-argentinas-entire-population/; Leisha Chi, "Philippines Elections Hack 'Leaks Voter Data,'" BBC News, April 11, 2016, sec. Technology, https://www.bbc.com/news/technology-36013713.

[44] Nanjala Nyabola, "Ideas | National Digital ID Initiatives Have a Trust Problem," *Rest of World*, May 5, 2021, https://restofworld.org/2021/kenya-digital-id/; Marielle Debos, "Biometrics and the Disciplining of Democracy: Technology, Electoral Politics, and Liberal Interventionism in Chad," *Democratization* 0, no. 0 (March 31, 2021): 1–17, https://doi.org/10.1080/13510347.2021.1907349; Dr Robert Muthuri, Francis Monyango, and Wanjiku Karanja, "Biometric Technology, Elections, and Privacy Investigating Privacy Implications Of Biometric Voter Registration In Kenya's 2017 Election Process.," 2017, 42.

[45] Muralidharan, Niehaus, and Sukhtankar, "Identity Verification Standards in Welfare Programs"; Usha Ramanathan, "Biometrics Use for Social Protection Programmes in India Risk Violating Human Rights of the Poor," *Social Protection and Human Rights* (blog), accessed June 14, 2020, https://socialprotection-humanrights.org/expertcom/biometrics-use-for-social-protection-programmes-in-india-risk-violating-human-rights-of-the-poor/; Reetika Khera, "Impact of Aadhaar on Welfare Programmes"; Masiero and Prakash, "ICT in Social Protection Schemes"; Jean Drèze et al., "Aadhaar and Food Security in Jharkhand: Pain without Gain?"; Usha Ramanathan, "Aadhaar Is like Drone Warfare versus Hand to Hand Combat, Profiling Becomes All That More Easier," *Business Standard*, April 1, 2016, https://www.business-standard.com/article/economy-policy/aadhaar-is-like-drone-warfare-versus-hand-to-hand-combat-profiling-becomes-all-that-more-easier-usha-ramanathan-116033101394_1.html; Nazar Khalid, "Aadhaar, Biometrics, and the PDS in Jharkhand."

[46] Center for Human Rights and Global Justice, Initiative for Social and Economic Rights, and Unwanted Witness, "Chased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons"; Shiv Sahay Singh, "Death by Digital Exclusion? : On Faulty Public Distribution System in Jharkhand," *The Hindu*, July 13, 2019, sec. Other States, https://www.thehindu.com/news/national/other-states/death-by-digital-exclusion/article28414768.ece; Jeremy Wickins, "The Ethics of Biometrics: The Risk of Social Exclusion from the Widespread Use of Electronic Identification," *Science and Engineering Ethics* 13, no. 1 (March 27, 2007): 45–54, https://doi.org/10.1007/s11948-007-9003-z.

Meanwhile, the ID4D Initiative and other actors in the field of identification for development have concentrated on highlighting the prospective benefits of digital ID for development and human rights. Digital identification systems are projected to achieve an often dizzying array of development goals. This includes: i) establishing legal rights, sometimes including nationality or refugee status; ii) facilitating access to public and private services; iii) increasing financial inclusion; iv) building government capacity and statistics; v) opening new opportunities for the private sector, and vi) managing elections.[47] However, little concrete evidence, backed by rigorous research and systematic monitoring, has been put forward to substantiate these claims.[48] We do not know if these systems work. We are still lacking baseline studies that demonstrate the problems attempting to be solved, robust evaluations of whether new or upgraded digital ID systems will address any of the evidenced problems, and evaluations of whether there are alternative, less harmful options that could be used to achieve the same results. The World Bank, itself, has explicitly highlighted some of these evidentiary gaps.[49]

In lieu of evidence, the causal relationship between digital ID systems and subsequent benefits remains assumed, rather than proven. Referring to a recent digital ID project that the World Bank supports in Nigeria, the Bank claimed that "[i]dentification can facilitate access to social protection programs, legal protection, financial services; strengthen political participation; and remove barriers to voter registration."[50] But in the 2015 research referenced in the footnote accompanying these claimed benefits, the World Bank authors concluded that "more data must be produced [...] that show how many people lack ID documents and birth certificates and to ascertain the consequences for progress in gender equality in each of the domains above, recognizing that implications for the ID4D agenda may vary. It is hoped that as more data and evidence is being produced and gathered, this work will constitute a solid basis for policy paper and recommendations."[51]

In many cases, these systems simply have not worked.[52] Many have faced severe

[47] World Bank, "ID4D Practitioner's Guide: Version 1.0," 3–5; World Bank, "Public Sector Savings and Revenue from Identification Systems: Opportunities and Constraint"; World Bank, "Private Sector Economic Impacts from Identification Systems" (Washington, DC: World Bank Group, 2018), https://doi.org/10.1596/31828; Identification for Development, "Identification for Development Strategic Framework," January 25, 2016, https://web.archive.org/web/20170206104935/http://pubdocs.worldbank.org/en/179901454620206363/Jan-2016-ID4D-Strategic-Roadmap.pdf.

[48] A recent impact evaluation completed in Pakistan on the Benazir Income Support Program is "one of only a few IEs to date that focuses on the impact of leveraging a foundational ID system for service delivery on development outcomes, and the first completed under the ID4D portfolio." World Bank, "Identification for Development (ID4D) and Digitalizing G2P Payments (G2Px) Annual Report 2021," 15.

[49] World Bank, "Identification for Development (ID4D) Annual Report 2020" (Washignton, DC: World Bank Group, 2020), 18. ("Yet, given that this topic is relatively new to the development agenda, empirical research that rigorously evaluates the impact of ID systems on development outcomes and the effectiveness of strategies to mitigate risks has been limited. Building this evidence base is critical to advance global knowledge and improve policies and implementation for the increasing number of countries investing in new ID systems or reforming existing ones."); Megan Brewer et al., "Mitigating Governance Risks in Identification Systems," in *The World Bank Legal Review Volume 7 Financing and Implementing the Post-2015 Development Agenda: The Role of Law and Justice Systems*, ed. Frank Fariello, vol. 7 (Washington, DC: World Bank Group, 2015), 11, https://openknowledge.worldbank.org/bitstream/handle/10986/24997/9781464805455.pdf?sequence=2&isAllowed=y. ("In sum, the existing evidence evaluating the links among registration, documentation, and inclusive development reveal both complexity and uncertainty. Although new evidence is emerging, there is an overarching need to invest further in filling continuing evidentiary gaps.").

[50] World Bank. "Project Appraisal Document: Nigeria Digital Identification for Development Project (P167183)," January 30, 2020: 108. https://documents1.worldbank.org/curated/en/250181582340455479/pdf/Nigeria-Digital-Identification-for-Development-Project.pdf.

[51] Mariana Dahan and Lucia Hanmer, "The Identification for Development Agenda: Its Potential for Empowering Women and Girls" (Washington, DC: World Bank Group, 2015), 18.

[52] This is an endemic problem with Management Information Systems, as research by Hosein and Nyst found that in in developed countries approximately 25% of MIS projects were considered failures and 60% had undesirable impacts. Meanwhile, the same study found that almost all of the World Bank's investments in MIS were considered to be partial failures. Hosein and Nyst, "Aiding Surveillance," 26.

operational challenges and have been mired in corruption and waste.[53] For instance, an early World Bank effort to introduce a biometric national ID in Bangladesh was severely delayed after failures to introduce the necessary legal reforms, and the project was unable to reach more than fifty percent of the target population.[54] Corruption and collusion eventually resulted in the debarment of Oberthur Technologies SA (Oberthur), a company later acquired by biometrics giant Idemia.[55] At the same time, such new digital initiatives are often "lucrative sites for international firms' profits, and also, notoriously, for the extraction of rents by local decision-makers."[56] The combination of human rights harms and operational failures has meant that the World Bank simply does not have robust "evidence of what has worked," and certainly not enough to justify the speed and fervor with which digital ID systems have been promoted.[57]

These evidentiary gaps fit within a broader trend of the World Bank acting far from scientifically in its collection and presentation of evidence. Other knowledgeable observers have highlighted problems not only with the specific methodologies used by the Bank, but also the persistent lack of investment in quality impact evaluations, particularly for multisectoral work,[58] and the lack of robust cost-benefit analyses.[59] Meanwhile, recent controversies around manipulation of data informing the Bank's influential Doing Business Report has shown a worrying lack of impartiality and rigor.[60] Some of these issues have manifested in work on digital ID, where empirical claims such as, "the Aadhaar unique identification system in India generated over $11 billion dollars in potential savings," have

[53] Notable struggles have occurred in Indonesia, where a major corruption scandal was exposed around the digital ID program known as eKTP, in Nigeria where initial attempts were abandoned following a bribery allegation with provider SAGEM, and in Ghana. *See* Jaap van der Straaten, "Plutocratic State. Elite Privilege and Bungled Identity Management at the Jugular of Democracy in Ghana.," 2021, https://doi.org/10.13140/RG.2.2.35417.24163; Jaap van der Straaten, "Identification for Development It Is Not. 'Inclusive and Trusted Digital ID Can Unlock Opportunities for the World's Most Vulnerable'-A Review. *SSRN Electronic Journal* 2020," 2020, https://doi.org/10.13140/RG.2.2.19300.19841; Matthew Woolgar, "Indonesia's e-ID Scandal Looks Set to Take Another Scalp," *East Asia Forum*, January 27, 2018, https://www.eastasiaforum.org/2018/01/27/indonesias-e-id-scandal-looks-set-to-take-another-scalp/; John Mcbeth, "Many More to Fall in Indonesia's e-KTP Scam," *Asia Times*, April 30, 2018, https://asiatimes.com/2018/04/many-more-to-fall-in-indonesias-e-ktp-scam/; Stephen Mayhew, "Safran Identity & Security Renews Biometric ID Contract with Nigeria | Biometric Update," *Biometric Update*, April 4, 2017, https://www.biometricupdate.com/201704/safran-identity-security-renews-biometric-id-contract-with-nigeria; BBC News, "Safran Fined in Nigerian Bribery Case - BBC News," *BBC News*, September 6, 2012, https://www.bbc.co.uk/news/business-19498916.

[54] "A total of 40.39 million citizens had access to secure and reliable means of identification, with their NID cards personalized by the project closing date, representing only 50.5 percent of the target of 80 million citizens." The Implementation Completion Review further found that "the appropriate lesson should be that legislative actions must be planned for deep in advance of project approval or effectivity." Independent Evaluation Group (IEG), "Implementation Completion Report (ICR) Review, Bangladesah IDEA Project (P121528)" (World Bank Group, June 30, 2016), 17.

[55] World Bank, World Bank Announces Settlement with Oberthur Technologies SA, November 30, 2017, https://www.worldbank.org/en/news/press-release/2017/11/30/world-bank-announces-settlement-with-oberthur-technologies-sa.

[56] Keith Breckenridge, 'The failure of the 'single source of truth about Kenyans': The NDRS, collateral mysteries and the Safaricom monopoly', *African Studies* (Vol. 78, No. 1, 2019): 94.

[57] A review by the IMF specified that those guiding governments "must be guided not by faith, but by evidence of what has worked. Jonathan D Ostry, Prakash Loungani, and Davide Furceri, "Neoliberalism: Oversold?," *Finance & Development* 53, no. 2 (June 2016): 41.

[58] Martin Ravallion, "The World Bank: Why It Is Still Needed and Why It Still Disappoints," *The Journal of Economic Perspectives* 30, no. 1 (2016): 77–94, https://www.jstor.org/stable/43710011; Abhijit V. Banerjee, Nora Lustig, and Kenneth Rogoff, "An Evaluation of World Bank Research, 1998 - 2005," *SSRN Electronic Journal*, 2006, https://doi.org/10/gp5vv2.

[59] "The most significant finding is that project leaders report that cost-benefit analysis is usually conducted after the decision has been reached to pursue a project. Of the 51 project leaders, only 5 reported that cost-benefit analysis is given significant weight at the project identification stage. Eighteen of the leaders reported that cost-benefit analysis is given significant weight at the preparation stage. When asked whether a cost-benefit analysis had ever been the key criterion in deciding to fund a project, project leaders overwhelmingly (82 percent) said it had not. The decision about funding a project occurs well before cost-benefit analysis is done; in those cases where cost-benefit analysis is already available, it is used as a design tool at best—that is, to evaluate components or subcomponents of a project that should be added or dropped on the basis of their economic viability." Independent Evaluation Group, "Cost-Benefit Analysis in World Bank Projects" (Washington, D.C.: World Bank Group, 2010), 32.

[60] "Death of Doing Business Report Greatly Exaggerated as World Bank Announces Rebranding Plans," Bretton Woods Project, December 9, 2021, https://www.brettonwoodsproject.org/2021/12/death-of-doing-business-report-greatly-exaggerated-as-bank-announces-rebranding-plans/.

been shown to rest on shaky assumptions.[61]

We appreciate the difficulty of measuring the impact of complex and ambitious digital ID schemes, especially those that are linked to pre-existing systems[62] (a proviso frequently cited in World Bank publications).[63] However, such difficulty should be addressed by attempting more seriously to carefully gauge impact[64] or by openly admitting what we do not know. The continuing uncertainty also demands that we resist the urge to heavily invest and fast track untested, unproven systems across entire populations.

But proponents of digital ID still aggressively assert that, as compared to paper-based alternatives, digital ID systems represent transformative improvements and should be rapidly scaled. In other words, compared to counterfactual scenarios, we are still better off investing in digital ID systems.[65] However, this position ignores many of the very real harms that are already being experienced by some of the most marginalized around the world. It also ignores the prospective harms that such systems may lead to in the future. Those who are encouraging and funding the rapid roll-out of digital ID systems then also bear a responsibility to monitor and document human rights impacts.[66] Human rights organizations and civil society groups will continue to play an important role in collecting and presenting evidence of human rights harm. But such organizations are already severely under-resourced and face a myriad of challenges; not the least of which is the closing civic space worldwide which threatens their very existence. It is unrealistic and negligent to allow the burden of proving impact to fall predominantly on civil society, especially in the absence of open access to relevant data about system design and implementation.

[61] Jean Drèze and Reetika Khera, "Aadhaar's $11-Bn Question: The Numbers Being Touted by Govt Have No Solid Basis," *The Economic Times*, February 8, 2018, https://economictimes.indiatimes.com/news/economy/policy/aadhaars-11-bn-question-the-numbers-being-touted-by-govt-have-no-solid-basis/articleshow/62830705.cms.

[62] The field of Science Technology Studies is still developing analytical tools, such as the model of data justice, to assess the impact of this datafication, see, for example, Aaron Martin and Linnet Taylor, "Exclusion and Inclusion in Identification: Regulation, Displacement and Data Justice," *Information Technology for Development* 27, no. 1 (January 2, 2021): 50–66, https://doi.org/10.1080/02681102.2020.1811943; Silvia Masiero and Savita Bailur, "Digital Identity for Development: The Quest for Justice and a Research Agenda," *Information Technology for Development* 27, no. 1 (January 2, 2021): 1–12, https://doi.org/10.1080/02681102.2021.1859669; Richard Heeks and Satyarupa Shekhar, "Datafication, Development and Marginalised Urban Communities: An Applied Data Justice Framework," *Information, Communication & Society* 22, no. 7 (June 7, 2019): 992–1011, https://doi.org/10.1080/1369118X.2019.1599039; Silvia Masiero, "Critical Theory in Information Systems: Where Is the South?," SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, December 28, 2020), https://doi.org/10.2139/ssrn.3756357.

[63] The Bank has acknowledged as much, writing: "Furthermore, it is difficult to establish appropriate counterfactuals to assess identification-related savings and revenue within—and particularly between—countries. This stems from the fundamental problem of causal inference, as well as challenges related to operationalizing and measuring complex policy interventions like identification systems. Few truly "greenfield" identification projects exist; most consist of iterative or piecemeal reforms of existing systems. Considering the impact of going from "ID system = 0" to "ID system = 1" is therefore not practical in many cases. The design and use of identification systems is also multilayered and rarely equivalent across countries or ministries, making it difficult to define a uniform "identification intervention" or directly compare savings and revenue outcomes across a variety of sectors and agencies." World Bank, "Public Sector Savings and Revenue from Identification Systems: Opportunities and Constraint," 2.

[64] Angus Deaton has written about the importance of context in selecting proper methodological tools based on the context and not limiting research that fits within specific methodological questions, *see, e.g.*, Angus Deaton, "Randomization in the Tropics Revisited: A Theme and Eleven Variations" (Cambridge, MA: National Bureau of Economic Research, October 2019), https://doi.org/10.3386/w27600.

[65] "With all these issues, there is also the need to consider the counterfactual. Relative to alternatives, biometric identification can increase inclusion, privacy and efficiency. [...] Many critics of precise identification systems fail to consider these and other counterfactuals." Alan Gelb and Julia Clark, "Identification for Development: The Biometrics Revolution," *SSRN Electronic Journal*, 2013, 1, https://doi.org/10.2139/ssrn.2226594.

[66] Report of the Special Rapporteur on extreme poverty and human rights to the UN General Assembly, August, 4, 2015, A/70/274, https://documents-dds-ny.un.org/doc/UNDOC/GEN/N15/243/35/PDF/N1524335.pdf?OpenElement.

B. Developing the Identification for Development (ID4D) Agenda

How did we arrive at a point where digital ID systems with a track record of human rights harm are globally promoted and attract millions of dollars in funding on the basis of poorly substantiated benefits? It is helpful to understand, first, the broader field of 'identification for development' and its actors. The Bank cannot be solely credited with driving these developments; many other actors in the development field, including national governments, had been investing heavily in biometric technologies well before the framing of the identification for development agenda in the last decade. Early approaches were driven by specific concerns in different areas of governance and development. For instance, the targeted, conditional approach to cash transfers favored by many development institutions requires complex eligibility standards and significant amounts of data.[67] These programs were claimed to have endemic levels of fraud, error, and leakages—though solid evidence showing its existence or scope was lacking.[68] New technologies, particularly biometrics, were thought of as a 'game changing' solution to address these issues.[69]

However, the global identification for development agenda is much more than just the application of new tools to old problems. It is also an intelligently crafted agenda for inclusion, empowerment, and human rights. Seizing upon Sustainable Development Goal (SDG) target 16.9, which calls on states to provide "legal identity for all, including birth registration," the World Bank and those in its network presented digital ID as central to achieving this and many other SDG targets.[70] The Bank-facilitated *Principles on Identification for Sustainable Development*, a set of principles developed to encourage good practices in building digital ID systems, further highlight that this is not merely a development issue, but a human rights one.

> "We believe that every person has the right to participate fully in their society and economy. Without proof of identity, people may be denied access to rights and services—they may be unable to open a bank account, attend school, collect benefits such as social security, seek legal protection, or otherwise engage in modern society. No one should face the indignity of exclusion, nor be denied the opportunity to realize their full potential, exercise their rights, or to share in progress. No one should be left behind."[71]

[67] Development Pathways, "Extent of World Bank's Poverty-Targeting Demands Laid Bare in Civil Society Analysis," *Development Pathways* (blog), accessed April 27, 2020, https://www.developmentpathways.co.uk/news/extent-of-world-banks-poverty-targeting-demands-laid-bare-in-civil-society-analysis/.

[68] Kathy Lindert et al., "Sourcebook on the Foundations of Social Protection Delivery Systems" (Washington, DC: World Bank Group, 2020), 350–51.("While SEFC statistics are not always available in many countries, the evidence from countries monitoring EFC shows that significant amounts are lost to EFC [...] The information from developing countries is scarcer, as only a few programs and countries have taken measures to combat and/or measure the incidence of EFC. However, it is plausible to expect the share of funds affected by EFC be larger compared to developed countries.").

[69] Alan Gelb and Caroline Decker, "Cash at Your Fingertips: Biometric Technology for Transfers in Resource-Rich Countries," June 2011, https://www.cgdev.org/sites/default/files/1425165_file_Gelb_Decker_biometric_FINAL.pdf; Lindert et al., "Sourcebook on the Foundations of Social Protection Delivery Systems"; Phillippe Leite et al., "Social Registries for Social Assistance and Beyond: A Guidance Note & Assessment Tool," July 2017, 119; Development Pathways, "Extent of World Bank's Poverty-Targeting Demands Laid Bare in Civil Society Analysis." *See also* a Dahan and John Edge, "The World Citizen: Transforming Statelessness into Global Citizenship," *World Bank Blogs* (blog), November 25, 2015, https://blogs.worldbank.org/digital-development/world-

[70] Privacy International, "The Sustainable Development Goals, Identity, and Privacy: Does Their Implementation Risk Human Rights?," *Privacy International* (blog), August 29, 2018, http://privacyinternational.org/long-read/2237/sustainable-development-goals-identity-and-privacy-does-their-implementation-risk.

[71] World Bank, "Principles on Identification for Sustainable Development Toward the Digital Age Second Edition" (Washington, DC: World Bank Group, 2021), 2, http://documents1.worldbank.org/curated/en/213581486378184357/pdf/Principles-on-Identification-for-Sustainable-Development-Toward-the-Digital-Age-Second-Edition.pdf.

Achieving this goal requires increasing the coverage of existing ID systems to include the just under one billion people who, according to the World Bank, do not have proof of their legal identity.[72] For many—including members of the current UN Legal Identity Agenda Task Force, an inter-agency coordination body set up to develop a common approach to SDG 16.9[73]—the preferred way of providing this rights-based legal identity is through birth registration and a civil registration and vital statistics (CRVS) system.[74] At first sight, the Bank appears to be aligned with this goal of supporting CRVS systems,[75] and is a partner, though not a member, of the UN task force set up to realize this goal.

However, a new model of the digital ID system is now being promoted by the Bank. This model prioritizes what we describe throughout this document as 'economic' or 'transactional' identity. The Bank still invests in what it often refers to as 'traditional' CRVS and birth registration systems. However, there has been a "collective paradigm shift," calling for investments in new forms of systems.[76] Instead of providing a birth certificate, these new systems will help to create "digital public infrastructure" as part of a "digital stack" to "enable paperless, cashless, remote, and data-empowered transactions."[77] In other words, new systems will go far beyond the initial functionality of a traditional system.

This closely aligns with the model of Aadhaar, the biometric unique identification project launched in India in 2009. Aadhaar provided a multi-purpose identification system, targeted initially at adults, that could be used to authenticate transactions with a wide variety of public and private actors. One of the primary reasons Aadhaar has been admired by the development community is the speed with which it achieved near universal coverage, now reaching over 1.2 billion people. Of course, there is still a remaining identification gap even in India, and efforts to replicate the coverage percentages of Aadhaar in other countries has been limited. Identification systems rarely reach above 80% of total coverage.[78] Further, research has shown that most of those who registered for Aadhaar already possessed some form of proof of identification before Aadhaar was introduced.[79]

The Bank's new paradigm references 'foundational identity,' a term made popular by Gelb and Clark in their influential 2013 paper and influenced by the experience in India.[80] Foundational ID is a capacious term that can cover a wide variety of systems, including more traditional civil registration systems. However, a foundational ID system does not require a link to legal recognition of rights. Such systems can be linked to legal status, but need not be.[81] Rather, the promise of foundational systems lies in their neutral ability to distinguish between different people, or to determine uniqueness, and use that as the basis

[72] World Bank, "1.1 Billion 'Invisible' People without ID Are Priority for New High Level Advisory Council on Identification for Development," *World Bank Blogs* (blog), October 12, 2017, https://doi.org/10/12/11-billion-invisible-people-without-id-are-priority-for-new-high-level-advisory-council-on-identification-for-development.
[73] This was formerly known as the UN-Legal Identity Expert Group, established by Amina Mohammed in September 2018.
[74] A description of the UN Legal Identity Agenda Task Force is here: https://unstats.un.org/legal-identity-agenda/UNLIATF/.
[75] World Bank and World Health Organization. "Global Civil Registration and Vital Statistics Scaling up Investment Plan 2015–2024." Washington, DC: World Bank Group, May 28, 2014. https://openknowledge.worldbank.org/bitstream/handle/10986/18962/883510WP0CRVS000Box385194B00PUBLIC0.pdf?sequence=1&isAllowed=y.
[76] This paradigm shift has many facets, and includes some aspects that apply equally to CRVS and "traditional systems" and new forms of ID system, such as strong leadership, human-centered design, legal and institutional frameworks, and non-centralized approaches. World Bank, "Identification for Development (ID4D) and Digitalizing G2P Payments (G2Px) Annual Report 2021," 5.
[77] World Bank, "Principles on Identification for Sustainable Development Toward the Digital Age Second Edition," 5.
[78] Jaap van der Straaten, "Uganda's Sine Qua Non National ID - Without Which, Not," *SSRN Electronic Journal*, 2022, 7–8, https://doi.org/10/gp8tgd.
[79] Reetika Khera, *Dissent on Aadhaar: Big Data Meets Big Brother*, 27.
[80] Gelb and Clark, "Identification for Development," 3.
[81] For instance, see Manby, "The Sustainable Development Goals and 'Legal Identity for All.'"

for secure transactions.[82] These systems seem attractive because the question of who is granted citizenship and accompanying rights is made downstream from the identification system. This differs from birth registration, where according to human rights frameworks, nationality should be determined as close to birth as possible. The Bank, however, has a long and complicated relationship to politics and human rights, and seems more comfortable keeping such concerns at arms length.[83] A model in which the government is perceived as merely building the "digital public infrastructure"[84] on top of which private enterprise can flourish, also seems to align with long-held neoliberal preferences at the Bank about the role of government vis-à-vis the private sector.[85] Therefore, the focus on foundational ID fits well within existing Bank policies.

Significant evidence has shown that there are many problems with this model. The economic approach to identity may lead to new forms of coercion and exploitation of poor populations and their data by the public and private sector—as critics of the Aadhaar system have pointed out.[86] Furthermore, this approach conveniently sidesteps the messy realities of deliberate exclusion by national governments.[87] Since the identification platform is neutral on legal status—apart from requiring either *de jure* or *de facto* legal residency—and on subsequent access to government and private services, it cannot be assumed that any such foundational ID leads to the promised future benefits for individuals and their human rights. Meanwhile, governments in the Global South are taking on large debts and spending millions in public funds on contracts with private vendors to build biometric systems that can all too easily become systems of exclusion, surveillance, and repression. The Bank takes great pains to state that biometrics are not required. But by emphasizing their benefits throughout its documentation, the ID4D Initiative has helped to normalize the extensive use of biometrics in digital ID systems.[88]

C. ID4D in Action

The World Bank's ID4D Initiative continues to promote digital ID systems through its three pillars of work: thought leadership, network building, and country and regional action. It has published extensive bodies of work about the proposed value of these foundational systems. This includes establishing technical standards for best practices, and working to codify norms through the *Principles on Identification for Sustainable Development*, for which

[82] This appears to be driven by the private sectors need to be able to trace individuals throughout datasets, see World Bank, "G20 Digital Identity Onboarding," 10. ("FSPs prefer to use an identity credential that has the characteristic of being 'unique'.").
[83] *See generally,* Report of the Special Rapporteur on extreme poverty and human rights to the UN General Assembly, August, 4, 2015, A/70/274, https://documents-dds-ny.un.org/doc/UNDOC/GEN/N15/243/35/PDF/N1524335.pdf?OpenElement, Galit Sarfaty, *Values in Translation: Human Rights and the Culture of the World Bank* (Stanford: Stanford University Press, 2012).
[84] World Bank, "Identification for Development (ID4D) and Digitalizing G2P Payments (G2Px) Annual Report 2021," 5–6.
[85] Babb and Kentikelenis, 'International Financial Institutions as Agents of Neoliberalism', in: *The SAGE Handbook of Neoliberalism*, edited by D. Cahill, M. Cooper, M. Konings, & D. Primrose (2018); Babb and Kentikelenis, 'Markets Everywhere: The Washington Consensus and the Sociology of Global Institutional Change', *Annual Review of Sociology* (Vol. 47, 2021): 521–541.
[86] M.S. Sriram, "Public Investments and Private Profits," 187–202.
[87] Manby, "The Sustainable Development Goals and 'Legal Identity for All,'" 7–8; Jaap van der Straaten, "Identification for Development It Is Not. 'Inclusive and Trusted Digital ID Can Unlock Opportunities for the World's Most Vulnerable'-A Review. *SSRN Electronic Journal* 2020," 19–22.
[88] While emphasizing that biometrics are not always required, the Bank also highlights the importance of their use in de-duplicating databases and establishing "trust," saying that: "Biometric recognition has rapidly proliferated in modern ID systems in part because it is currently the most accurate and efficient technology available for deduplicating large populations to ensure statistical uniqueness—particularly in countries without existing authoritative sources of identity information—and because it can provide a relatively high level of assurance during authentication. As such, biometrics can be a key ingredient in ensuring the trustworthiness of ID systems." World Bank, "ID4D Practitioner's Guide: Version 1.0," 122.

the World Bank acts as an 'anchor.'[89] This articulation of core ideas is then used to draw in other actors and provide them with the language and resources they need to push their agenda, reinforcing a network of like-minded individuals. Moreover, a core component of the ID4D Initiative's work, which is often hidden from public view, is its provision of technical assistance to national governments. This includes a formal diagnostic process,[90] fostering of peer-to-peer knowledge exchange, and direct technical support to governments considering investing in building or updating their ID systems. It also includes support to World Bank country teams that are delivering new funding initiatives.

Throughout this primer, we will refer particularly to four current Bank projects.[91] In Nigeria, the Bank acts as the lead investor on a project with an approved IDA Credit of US$115 million with co-financing from the European Investment Bank (EIB) of US$215 million and the Agence Française de Développement (AFD) of US$100 million for ongoing efforts to digitalize Nigeria's national ID system.[92] In the Philippines, several years of ID4D technical assistance to the government has now culminated in the approval of Development Policy Funding (DPF) for US$600 million that includes three actions (out of a total fifteen) which are related to the PhilSys ID system, newly prioritized in the wake of COVID-19.[93] In the Economic Community of West African States (ECOWAS), six countries have been approved to receive funding of US$395.1 million through the West Africa Unique Identification for Regional Integration and Inclusion (WURI) program using a mixture of IDA grants and credits, including Special Drawing Rights (SDR).[94] And in Mexico, the Bank has developed a US$225 million project for the Mexican government to invest in civil registration, a centralized biometric database, and a personal identification service.[95] Recent COVID-19 Development Policy Funding to Mexico also references the new personal identification service as an action.[96]

To ensure rapid expansion of coverage and facilitate the transactional and economic purpose of foundational digital ID systems, the World Bank has often embraced the de-linking of recognition of the person as a citizen and rightsholder from the system of identification. Not all projects separate identification from formal legal recognition within existing human rights frameworks.[97] However, several of the Bank's current projects reflect

[89] World Bank, "Principles on Identification for Sustainable Development Toward the Digital Age Second Edition."
[90] Some, but not all, of these diagnostics are publicly available at: https://id4d.worldbank.org/country-action/id4d-diagnostics.
[91] These projects have been grouped together as key projects for "lessons learned" draw on the World Bank's engagement in ID reforms around the globe. World Bank, "Project Appraisal Document: Mexico National Digital Identity System to Facilitate Inclusion (P172647)," 21.
[92] "The EIB will rely on the World Bank, acting as the lead financier, to ensure the project implementation is performed according to the EIB's E&S standards, including potential disbursement conditions related to E&S aspects." European Investment Bank, "Nigeria Digital ID," accessed March 7, 2022, https://www.eib.org/en/projects/loans/all/20180298.
[93] These actions include: "1) Through the Philippine Identification System Act (RA No. 11055) and Implementing Rules and Regulations, the government has created the legal and regulatory framework for a foundational ID system that aims to improve service delivery and financial inclusion for citizens and resident aliens, 2) As evidenced by the implementation progress report issued by Philippine Statistics Authority (PSA) on December 27, 2019, the PSA has piloted the registration for Philippine Identification System (PhilSys) for a limited and monitored set of sites and target populations to prepare for registration at scale, 3) The government has launched the registration campaign for PhilSys and adopted the PhilSys for social assistance beneficiary identification and verification. Communication with World Bank ID4D Team, see Annex. *See also* Ayang Macdonald, "Philippines Digital ID Scheme to Get Boost with $600M World Bank Loan," *Biometric Update*, December 14, 2021, https://www.biometricupdate.com/202112/philippines-digital-id-scheme-to-get-boost-with-600m-world-bank-loan.
[94] World Bank, "Project Appraisal Document: West Africa Unique Identification for Regional Integration and Inclusion (WURI), Using the Multiphase Programmatic Approach (P161329)," May 9, 2018, 1.
[95] World Bank, "Project Appraisal Document: Mexico National Digital Identity System to Facilitate Inclusion (P172647)."
[96] Loan Agreement, COVID-19 Financial Access Development Policy Loan between United Mexican States and International Bank for Reconstruction and Development, May 27, 2020; *see also* World Bank.
[97] Some projects in Gabon, Madagascar, Mozambique, Rwanda, Samoa, and Tonga do not separate legal status from identification. Communication with World Bank ID4D Team, *see* Annex.

this model. For instance, the WURI program, funded by the World Bank across several West African countries, embraces a definition of foundational ID that emphatically does *not* connote any form of legal status.[98] Instead, the system aims to build a unique identifier that can be leveraged across different countries. Similarly, the Nigeria Digital Identification for Development Project, also funded by the Bank, is not intended to take legal status into account.[99] This is a deliberate outcome of the Bank's model. Indeed, the Nigeria project documentation states that "[g]ood practice examples from countries, such as India and Peru, suggest [...] an inclusive foundational ID system is open to all; does not exclude persons based on their nationality or legal status."[100] Of course, such systems rarely reach universal coverage and are often not actually open to all. They can also continue to exclude marginalized groups, as examples from India have shown.[101]

Yet, by also arguing that foundational digital ID systems should link to existing CRVS systems, the Bank can declare that this "fully corresponds to SDG 16.9, providing 'legal identity for all, including birth registration' by 2030, as well as many other targets, such as those related to ending poverty, gender equality and the empowerment of women and girls, and safe and orderly migration."[102] However, our analysis has shown that the model promoted by the Bank often leads to the prioritization of investments in a foundational digital national ID above investments in CRVS.[103] The concentration on digital ID systems diverts efforts and resources away from providing individuals, especially newborns, with legal status and associated rights—which is required under international human rights law.[104] There could still be some benefits to a parallel approach. Such digital ID systems might, under some circumstances, be used to strengthen CRVS systems and grant access

[98] "Unlike NID systems, which seek to establish and confer recognition of legal status, the fID system is de-linked from nationality, universally accessible, and enables registration of all people in the country without any restrictions/eligibility criteria for registration (*e.g.,* citizenship, age restriction, driving test for driving license)." World Bank, "Project Appraisal for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Phase 2," April 10, 2020, 95–96, http://documents1.worldbank.org/curated/en/261151588384951057/pdf/Benin-Burkina-Faso-Togo-and-Niger-Second-Phase-of-West-Africa-Unique-Identification-for-Regional-Integration-and-Inclusion-WURI-Project.pdf.

[99] "As noted earlier, under this project, the ID system will be accessible to all regardless of nationality or legal status..." World Bank, "Project Appraisal Document: Nigeria Digital Identification for Development Project (P167183)," 47.

[100] World Bank, 8.

[101] Bikash Singh, "SC Notice on PIL for Aadhaar to Assam's 'Doubtful Citizens,'" *The Economic Times*, April 12, 2022, https://economictimes.indiatimes.com/news/india/sc-notice-on-pil-for-aadhaar-to-assams-doubtful-citizens/articleshow/90791477.cms; Silvia Masiero, "A New Layer of Exclusion?"; Chris Cirillo, "Discrimination Part of Everyday Life for Peru's Trans People," *ABC News*, April 6, 2021, https://abcnews.go.com/International/wireStory/discrimination-part-everyday-life-perus-trans-people-76898093.

[102] World Bank, "Project Appraisal Document: Nigeria Digital Identification for Development Project (P167183)," 32.

[103] "The NIMC system financed under this project is only the beginning of the set up of an improved foundational ID ecosystem in Nigeria, which will be expanded and made more robust through links with a digitized civil registry in a potential Phase II." World Bank, 32. In the WURI project, financing of CRVS has been left to other funders. "Data from the *f*ID system, in compliance with the institutional and regulatory provisions with regard to data sharing amongst systems and with user consent, could be leveraged by the project and/or other sources of financing (*e.g.,* EU, AFD, AfDB) to guide special operations to deliver late birth certificates. If the country elects to finance the issuance of late or delayed birth certificates for individuals not already in the CR, it will do so separately from a registration sweep *en masse* that populates the *f*ID system." World Bank, "Project Appraisal for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Phase 2," April 10, 2020, 102–3, http://documents1.worldbank.org/curated/en/261151588384951057/pdf/Benin-Burkina-Faso-Togo-and-Niger-Second-Phase-of-West-Africa-Unique-Identification-for-Regional-Integration-and-Inclusion-WURI-Project.pdf.

[104] This problem has been documented in countries such as Uganda, Center for Human Rights and Global Justice, Initiative for Social and Economic Rights, and Unwanted Witness, "Chased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons," 14. ("A crucial failure relates to NIRA taking over the responsibility for birth and death registration from the Uganda Registration Services Bureau (URSB). Very few people in Uganda have birth certificates, which are required to prove their legal identity and age. NIRA has prioritized signing up the adult population for *Ndaga Muntu* and has not invested as much in the registration of vital events. The outgoing Acting Executive Director of NIRA, Brig. Gen. Stephen Kwiringira, who has long been an influential figure in the project, recently admitted: "*Part of the problem is that we started with capturing, registering people for elections purposes, yet ideally, I think we should have started with registering births*." As a result, the birth registration44 rate in Uganda has reached shockingly low numbers; recent estimates suggest that only 13% of children under 1 had their births registered, and death registration is also deplorably low.").

to rights.[105] However, if we look solely at Bank financing, we see a worrying pattern. The Bank continues to invest in CRVS systems, but now gives equal or greater weight in its public facing materials to the importance of other forms of ID systems. In its latest annual report, the ID4D team says that it is guiding US$1.5 billion of active and pipeline financing relating to digital ID systems. But the World Bank team has clarified that US$390 million in investments, only a quarter of the 1.5 billion figure, is directed to civil registration systems. Only 26 out of 55 active or pipeline IDA/IBRD identification projects make direct investments in civil registration.[106]

D. The Broader Digital ID Network

We have noted that the World Bank and its ID4D Initiative do not stand alone in pursuing the digital ID agenda. They exist within a global network of organizations and individuals. This includes donor governments like the United Kingdom, the United States and France; global foundations such as the Bill & Melinda Gates Foundation (BMGF) and Omidyar Network; tech-savvy governments such as in India and Estonia; the UN system, including the members of the UN-Legal Identity Agenda Task Force; regional development banks, including the Asian Development Bank and the Inter-American Development Bank; private biometrics corporations like Idemia, Thales, and Gemalto;[107] card companies such as MasterCard; new networks such as the Global System for Mobile Communications Association (GSMA) and ID4Africa;[108] and numerous other global organizations. All of these actors have different interests and hold different perspectives on the best way forward on digital ID systems.

For the World Bank, it seems likely that part of the attractiveness of the identification for development agenda lies in the ability of the Bank to claim a central role in what it has framed as an important new area of development. This has allowed ID4D to raise significant funds from donors like the BMGF and Omidyar Network. Based on the success of ID4D, the Bank can now claim that it is supporting "49 countries and shaping more than US$1.5 billion in pipeline or committed financing for the implementation of digital ID and civil registration ecosystems in 35 of them." ID4D has become an acknowledged 'thought leader' and 'knowledge hub' on "why ID matters for development, how to build [digital] ID

[105] "The project will aim to issue a NIN to every adult in Nigeria, as well as some children and youth, and facilitate NIN issuance to Nigerians abroad through consulates. It will also begin to register children for NINs at birth, once links to NPopC have been established." World Bank, "Project Appraisal Document: Nigeria Digital Identification for Development Project (P167183)," 32.

[106] "The World Bank and ID4D are one of the largest supporters for the development of civil registration systems around the world: 26 of 55 active and pipeline IDA/IBRD projects are making direct investments in the development of civil registration worth more than $390 million, including from the Global Financing Facility (GFF)." Communication with World Bank ID4D Team, *see* Annex.

[107] Thales is the result of the acquisition of Gemalto, while Idemia was formed following the merger of Oberthur Technologies and Morpho (OT-Morpho), which was later acquired by security giant Safran. European Commission, DG Comp, "Case M.8258 - Advent International / Morpho, Regulation (EC) No 139/2004 Merger Procedure," April 19, 2017, https://ec.europa.eu/competition/mergers/cases/decisions/m8258_1294_3.pdf; Julien Ponthus and Pamela Barbaglia, "EXCLUSIVE Advent Gears up for $4.6 Bln Sale of French Biometrics Firm IDEMIA - Sources," *Reuters*, February 4, 2022, sec. Business, https://www.reuters.com/business/exclusive-advent-gears-up-46-bln-sale-french-biometrics-firm-idemia-sources-2022-02-04/; European Commission, DG Comp, "Case M.8797 Thales/Gemalto: Merger Procedure Regulation (EC 139/2004)," November 12, 2018, https://ec.europa.eu/competition/mergers/cases/decisions/m8797_2386_3.pdf.

[108] ID4Africa is a self-defined "NGO movement" composed of national government actors, international development agencies and the private sector. A pamphlet describes this: "Our tripartite community orientation is in alignment with the public-private partnerships we believe are required to realize the vision of the Movement, creating the environment where government agencies define the needs, industry innovates to meet them, and development agencies help finance and guide the activities that address them." ID4Africa, "The ID4Africa Movement," 2020, 2, https://www.id4africa.com/main/files/The_ID4Africa_Movement.pdf.

and civil registration ecosystems, and tracking of impact and progress."[109]

At the same time, others in the identification for development network also benefit in their own ways. For countries in the Global South, besides receiving funds and support from development organizations and other donors to work on these issues, many governments acknowledge the utility of identification for reasons beyond inclusion.[110] One key motivation has been national security and counter-terrorism, as embodied by 2017 UN Security Council Resolution 2396, which called on Member States to collect biometric data to identify terrorists.[111] For instance, the Philippines armed forces spokesman argued that PhilSys—its digital ID system which has been supported by technical assistance from the World Bank since 2017 and pending a new infusion of funding—would "promote a peaceful and secure environment where terrorists, criminals and other unscrupulous individuals will face difficulties."[112] In Uganda, the national digital ID system was originally named the National Security and Information System, and the General who oversaw the project at its outset openly admitted that it was "a way to monitor and know where people are. It is another element to be added on to our arsenal of security weapons."[113] And in Pakistan, re-registration efforts into the national ID system were spurred, in part, by the War on Terror, with judicious assistance from the United States who, as leaked documents suggest, provided surveillance technologies in exchange for information on Pakistani citizens.[114]

Moreover, for countries in the North, the potential for foundational digital ID systems to curb and control migration and bolster security efforts has been an attractive proposition. Donor countries such as the United Kingdom, France, Germany, Israel, the United States, and Australia have actively invested in research, network building, and—often directly—in identification systems themselves.[115] These countries have an interest in reinforcing border controls, monitoring their own development funding, and opening new markets for corporate constituents, including biometrics companies. Indeed, national

[109] World Bank, Identification for Development, https://id4d.worldbank.org/about-us.

[110] "Finger printing and biometrics capture in general is often a source of unease for data privacy advocates: Who owns that data? What will be used for? For many of us, the dystopian picture of Orwell's 1984 universe comes to mind. While such concerns have some validity, I believe we must assume that there are responsible and sound governments, as well as professional administrations behind such identity management efforts." Samia Melhem, "Creating 1.2 Billion Unique EIDs: Lessons from India," *World Bank Blogs* (blog), April 25, 2014, 2, https://blogs.worldbank.org/digital-development/creating-12-billion-unique-eids-lessons-india.

[111] "Decides that Member States shall develop and implement systems to collect biometric data, which could include fingerprints, photographs, facial recognition, and other relevant identifying biometric data, in order to responsibly and properly identify terrorists, including foreign terrorist fighters, in compliance with domestic law and international human rights law, calls upon other Member States, international, regional, and subregional entities to provide technical assistance, resources, and capacity building to Member States in order to implement such systems and encourages Member States to share this data responsibly among relevant Member States, as appropriate, and with INTERPOL and other relevant international bodies" UN Security Council, Resolution 2396 (2017): para. 15, December 21, 2017, https://documents-dds-ny.un.org/doc/UNDOC/GEN/N17/460/25/PDF/N1746025.pdf?OpenElement.

[112] Ellie Aben, "Philippines' New National ID System Divides Opinions," *Arab News*, September 1, 2018, https://www.arabnews.com/node/1365461/world. *See also* Foundation for Media Alternatives, "The National ID Debate: Is the Philippines Ready?," n.d.

[113] Center for Human Rights and Global Justice, Initiative for Social and Economic Rights, and Unwanted Witness, "Chased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons," 8.

[114] Mahvish Ahmad and Rabia Mehmood, "Surveillance, Authoritarianism and 'Imperial Effects' in Pakistan," Surveillance & Society 15, no. 3/4 (August 9, 2017): 506–13, https://doi.org/10/gp63gt.

[115] UK Department for International Development, "Financial Case"; Éric Dagiral and Khetrimayum Monish Singh, "Governance and Accountable Citizenship Through Identification Infrastructures: Database Politics of Copernicus (France) and National Register of Citizens (India)," *Science, Technology and Society* 25, no. 3 (November 1, 2020): 368–85, https://doi.org/10/gmr75t; Linah Alsaafin, "The Colour-Coded Israeli ID System for Palestinians," *Al Jazeera*, November 18, 2017, https://www.aljazeera.com/news/2017/11/18/the-colour-coded-israeli-id-system-for-palestinians; Mia Hunt, "'Not a Lot to Show' for Australia's $400m Digital ID Programme, Says Former Government CIO - Global Government Forum," October 5, 2022, https://www.globalgovernmentforum.com/not-a-lot-to-show-for-australias-400m-digital-id-programme-says-former-government-cio/; Clare Sullivan, "Digital Citizenship and the Right to Identity in Australia," *Federal Law Review* 41, no. 3 (2013): 557–84, https://heinonline.org/HOL/P?h=hein.journals/fedlr41&i=557.

embassies have played a role in helping to secure contracts for biometrics companies.[116] Meanwhile, governments whose digital ID systems have been promoted as success stories, such as Estonia, India, Peru, and Pakistan, have positioned themselves as key ID4D partners. They have exported 'home-grown' ID systems, consultants, and expertise directly to other governments in the Global South.[117]

International vendors have other reasons for being enthusiastic about identification for development, since massive investments in digital ID systems means new opportunities to do business. At giant expos like the ID4Africa Annual Meetings, vendors provide information on their products delivering everything from biometrics for infants[118] to cloud-based management information systems and machine learning tools. According to some reports, the profitable biometric identification market is estimated to reach over US$44.1 billion by 2026.[119] Still other private firms in fields such as banking and fintech, mobile, and health, have found that the introduction of such systems can also reduce regulatory compliance and transaction costs, and enable entry into new markets for products and services.[120]

Finally, for foundations and private donors, the relevance of identification for development can be very different. For instance, the BMGF, which provided the initial 'catalytic investment' to form ID4D, has established a strong alignment between its work on Financial Services for the Poor and digital identification systems.[121] This seems to have been inspired in no small part by Aadhaar: Bill Gates himself has showed a personal interest in India's Unique Identification Authority and the development of the 'India Stack.'[122] By focusing on financialization and digital transfers, BMGF favors cash assistance and access

[116] "The genesis of IDEMIA's 2017 involvement in the election goes back to the 2013 election. IDEMIA (then known as Safran Identity and Security) had made it through a toughly contested tendering process, in spite of its bid having emerged as the second most attractive, behind Smartmatic. Months of lobbying by the French Embassy in Kenya would pay off, as referenced by an observer at the time, who refers to a letter written by the embassy's economic department: "The influence of this company was seen as a key objective of the French," this observer recalls." John-Allan Namu, "Kenya's 2022 Election: Is the Past a Prelude?," *Africa Uncensored,* May 24, 2022, https://africauncensored.online/kenyas-2022-election/. "According to official documents and reports in the press, in 2010, the German Ambassador brought a "Mr. Mühlbauer" to meet with relevant ministers and eventually with President Yoweri Museveni himself.152 The company that he represented, Mühlbauer High Tech International, provided identification technologies, including biometric ID cards and personalisation centres, where cards can be printed.153 The administration decided to bypass the standard procurement process, citing national security concerns, in March of 2010. The Government of Uganda awarded Mühlbauer a single sourcing contract equivalent to €64 million EUR to deliver a new national ID project.154 Mühlbauer was contracted to supply machinery and equipment to set up the national identity card project, as well as a personalisation facility to produce the national ID cards and a national data centre. President Museveni officially launched the project on May 21, 2011, when he received the first national ID card at the Kololo ceremonial grounds in Kampala." Center for Human Rights and Global Justice, Initiative for Social and Economic Rights, and Unwanted Witness, "Chased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons," 64.

[117] For instance, through its e-Estonia initiative, the government of Estonia claims that it has visited 130 countries, hosted 75,375 visitors and 5,228 delegations interested in learning how it has "built a digital society." *See* https://e-estonia.com.

[118] Joshua J Engelsma and Dr. Anil K. Jain, "ID4Africa 2019: Spotlight on Infant Biometrics," n.d.

[119] PRNewswire, "Global Biometrics Market to Reach $44.1 Billion by 2026," *PRNewswire*, March 3, 2022, https://www.prnewswire.com/news-releases/global-biometrics-market-to-reach-44-1-billion-by-2026--301493619.html.

[120] Financial Action Task Force (FATF), "Guidance on Digital Identity," 2020, http://www.fatf-gafi.org/media/fatf/documents/recommendations/pdfs/Guidance-on-Digital-Identity.pdf; GSMA, World Bank Group, and Security Identity Alliance, "Digital Identity: Towards Shared Principles for Public and Private Sector Cooperation" (World Bank, July 2016), https://doi.org/10.1596/24920; Deloitte, "Why Financial Institutions (FIs) Will Drive the Digital ID Revolution," LinkedIn, February 21, 2017, https://www.linkedin.com/pulse/why-financial-institutions-fis-drive-digital-id-christine-robson/; ITU-T Focus Group Digital Financial Services, "Review of National Identity Programs," 2016, https://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/09_2016/Review%20of%20National%20Identity%20Programs.pdf.

[121] Bill and Melinda Gates Foundation, "Basic DFS Enablers," Digital Financial Services Playbook, accessed September 11, 2020, https://www.dfsplaybook.org/enablers; Bill & Melinda Gates Foundation, "Financial Services for the Poor," accessed May 16, 2022, https://www.gatesfoundation.org/our-work/programs/global-growth-and-opportunity/financial-services-for-the-poor.

[122] BusinessToday.In, "Bill Gates Says India Has Potential for 'very Rapid' Economic Growth, Praises Aadhaar System," *Business Today*, November 17, 2019, https://www.businesstoday.in/latest/world/story/bill-gates-on-indian-economy-economic-growth-aadhaar-identity-system-238810-2019-11-17; Bill Gates, "Making the World's Invisible People, Visible," *Gatesnotes*.Com (blog), January 29, 2019, https://www.gatesnotes.com/Development/Heroes-in-the-Field-Nandan-Nilekani.

to formal financial products, services, and markets as a means of alleviating poverty. Digital ID systems are seen as instrumental to achieving this goal. A similar interest in foundational digital ID systems for financial inclusion has been demonstrated by the Omidyar Network—the organization set up by eBay founder Pierre Omidyar and Pam Omidyar—which has invested in identification for development under its Responsible Technology program.[123]

It goes far beyond the scope of this document to identify and analyze all the different motivations that exist among the different actors. The field is far from uniform and different actors and ideas continually emerge across this network. However, we believe that looking at the global identification for development agenda primarily through the prism of the work of the World Bank—a central node in this growing network—provides a critical starting point. The Bank has not only played an influential role in developing a new development consensus on identification and acted as part of the vanguard in country and regional action. It has also actively cultivated a network of actors devoted to the cause of digital ID systems. Understanding these activities offers critical insights into how the identification for development agenda has been shaped and what it represents.

E. About This Primer and Call to Action

This primer is directed at the broad, emerging coalition of those within the human rights ecosystem who are interested in and concerned about digital ID. Building on the work of many experts, we aim to share our understanding of the impact that digital ID systems have had on human rights and the role that the ID4D Initiative and World Bank have played in bolstering a new digital ID agenda within the broader ecosystem of actors. In the **first section**, we briefly present some of the key issues from the growing body of evidence of the harms caused by digital ID systems, particularly as it relates to social exclusion of the most marginalized. This body of evidence is critical in illuminating the stakes affected by digital ID policy choices. In the **second section**, we give a brief overview of the institutional history of identification for development at the Bank and explore how and why this institution got into the business of identification. We also highlight key ideas, actors, and relationships. We particularly focus on the new paradigm of foundational ID which has become a keystone of this agenda. **Section three** uses examples to demonstrate the different ways in which the ID4D Initiative and its promoted agenda have operated within the Bank. We also give an indication of the broader network involved, highlighting the World Bank's key relationships and partners in the field of digital ID systems. In the **conclusion**, we outline our recommendations for a shift in policy discussions around digital ID. This includes calls to: slow down processes so that sufficient care is taken; make discussions around digital ID systems more public; and build a broad coalition of diverse actors who have an interest in a human-rights focused society—which may mean not having a single national digital ID system at all.

[123] This includes funding for our own Digital Welfare State & Human Rights Project. For a full list of investments, *see* https://omidyar.com/responsible-technology-partners/.

1. THE HUMAN RIGHTS IMPACT OF NATIONAL DIGITAL IDENTIFICATION SYSTEMS

Digital ID systems are often built on top of existing paper-based systems and are deployed into complex contexts, layered atop existing inequalities and patterns of social exclusion. It can therefore be difficult to separate the impacts of formal identification systems in general from the unique impact of digital identification systems. To understand some of the key human rights concerns, we must therefore assess digital ID systems against two different benchmarks:

- First, we must assess digital ID against the overall impact of pre-existing, government-controlled, formalized identification systems. Here, we must make a clear distinction between systems of birth registration and civil registration, as opposed to other forms of identification programs. Birth registration is a fundamental human right for every child,[124] and systems of civil registration have been integral tools for governance and the primary means of proving citizenship and other rights. For instance, in several Latin American countries, systems of identification were a means for disenfranchised groups to claim recognition during state formation processes.[125] However, different forms of identification systems, including civil registration systems and national ID cards, have also been prone to exclusion and discrimination in the past. They have also been particularly valued for their ability to surveil and control.[126]

- A second question, however, is whether new technologies are disruptive or degenerative[127] and create novel kinds of human rights impacts. For instance, the widespread use of digitalized biometrics and the reliance on databases and remote verification is uniquely attributed to new digital systems. Furthermore, in many instances, digital ID systems have not followed the same legal and regulatory models as their paper-based predecessors. For example, Aadhaar does not provide proof of legal status or residency rights of the holder of an Aadhaar number. The experience in India has shown that both the introduction of biometric technologies and de-linking of digital ID from specific status can lead to novel forms of human rights violations, including new patterns of discrimination and exclusion as well as denial of access to political, economic,

[124] Office of the United Nations High Commissioner for Human Rights, Birth registration and the right of everyone to recognition everywhere as a person before the law, A/HRC/27/22, June 17, 2014.
[125] Jose Ragas, "Beyond Big Brother: Turning ID Cards into Weapons of Citizenship," *Perspectives on History*, April 4, 2016, https://www.historians.org/publications-and-directories/perspectives-on-history/april-2016/beyond-big-brother.
[126] Natalie Brinham et al., "Locked in and Locked Out: The Impact of Digital Identity Systems on Rohingya Population" (Institutes on Statelessness and Inclusion, November 2020); Christoph Sperfeldt, "Minorities and Statelessness: Social Exclusion and Citizenship in Cambodia," *International Journal on Minority and Group Rights* 27, no. 1 (2020): 94–120, https://doi.org/10/gp8tqs; Keren Weitzberg, "Biometrics, Race Making, and White Exceptionalism: The Controversy over Universal Fingerprinting in Kenya," *The Journal of African History* 61, no. 1 (March 2020): 23–43, https://doi.org/10.1017/S002185372000002X; Colin J. Bennett, David Lyon, and David Lyon, *Playing the Identity Card : Surveillance, Security and Identification in Global Perspective* (Routledge, 2013), https://doi.org/10.4324/9780203927137; David Lyon, "Biometrics, Identification and Surveillance," *Bioethics* 22, no. 9 (2008): 499–508, https://doi.org/10.1111/j.1467-8519.2008.00697.x; Timothy Longman, "Identity Cards, Ethnic Self-Perception, and Genocide in Rwanda," in *Documenting Individual Identity,* ed. Jane Caplan and John Torpey, The Development of State Practices in the Modern World (Princeton University Press, 2001), 345–58, https://doi.org/10.2307/j.ctv301fxj.23.
[127] *See generally,* Silvia Masiero and Viktor Arvidsson, "Degenerative Outcomes of Digital Identity Platforms for Development," *Information Systems Journal* 31, no. 6 (2021): 903–28, https://doi.org/10.1111/isj.12351; Reetika Khera, *Dissent on Aadhaar: Big Data Meets Big Brother* (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019), https://www.amazon.co.uk/Dissent-Aadhaar-Data-Meets-Brother/dp/9352875427.

and social rights.[128]

Comprehensively assessing these questions requires serious, deeply contextualized research, specific to a given country or region. This task is made more difficult by the fact that many new digital ID systems are in early phases and potentially impact so many different aspects of public and private life. It is often hard to know where to begin. This report does not undertake such research, but rather draws together existing evidence of human rights violations tied to digital ID systems and extrapolates this evidence to prospective human rights impacts that might be expected with the roll-out of similar digital ID systems.

We argue that while the promised benefits remain broadly unsubstantiated, it is especially important to ground normative and ethical considerations on the harms that have affected minority groups, and not concentrate solely on the prospective benefits for the majority.[129] For these groups, many aspects of their political, social, and economic life have already been affected by digital ID systems. This includes their rights to a name, nationality, life, food, education, health, social security, an adequate standard of living, privacy and data protection, free expression and association, freedom of movement, dignity, and equal treatment and non-discrimination.[130] Based on our review of the evidence, we find it helpful to divide the human rights impacts of digital ID systems into three distinct categories:

A. **Digital ID systems can increase the 'efficiency' of human rights violations:** Newly introduced digital ID systems often replicate the same human rights issues as 'traditional' identification systems, such as discriminatory treatment contributing to exclusion from social rights and statelessness. One of the functions of formal identification systems has been to deliberately create hierarchies, to exclude groups of 'outsiders,' and to control populations. Even seemingly neutral criteria can be a means of rendering people stateless.[131] Beyond replicating existing human rights issues, digital ID systems can assist governments in becoming more 'efficient' at infringing on rights by scaling existing rights issues to cover more people and decreasing transparency and participation by reducing opportunities for redress and accountability. Furthermore, the centralization of databases and the shift to a 'single-source of truth' model creates significant risks, while the use of new systems to administer a wide range of rights under the guise of purportedly neutral identification has

[128] *See generally,* Reetika Khera, *Dissent on Aadhaar: Big Data Meets Big Brother.*

[129] Abeba Birhane, "Algorithmic Injustice: A Relational Ethics Approach," *Patterns* 2, no. 2 (February 12, 2021): 5, https://doi.org/10/gh4m76. ("Given that harm is distributed disproportionately and that the most marginalized hold the epistemic privilege to recognize harm and injustice, relational ethics asks that for any solution that we seek, the starting point be the individuals and groups that are impacted the most. This means we seek to center the needs and welfare of those that are disproportionally impacted and not solutions that benefit the majority. Most of the time this means not simply creating a fairness metric for an existing system but rather questioning what the system is doing, particularly examining its consequences on minoritized and vulnerable groups. This requires us to zoom out and draw the bigger picture: a shift from asking "how can we make a certain dataset representative?" to examining "what is the product or tool being used for? Who benefits? Who is harmed?")

[130] For an overview of some of the issues raised in litigation, *see* Privacy International, "A Guide to Litigating Identity Systems" (London: Privacy International, September 2020), https://privacyinternational.org/learning-resources/guide-litigating-identity-systems.

[131] Neha Jain, "Manufacturing Statelessness," *American Journal of International Law* 116, no. 2 (April 2022): 237–88, https://doi.org/10/gp9c4w.

Figure 1. Human rights affected by digital ID systems.

made it increasingly difficult to assess the proportionality of such systems.[132]

B. **Digital technologies can introduce novel forms of harm that are difficult to define and address:** This includes new forms of exclusion from rights tied to the increased use of biometrics, to digital collection, storage and sharing of identification data, and automated decision-making. This may lead to individuals being shut out or cut off from the system entirely, which—combined with the centralization of data and access points—can lead to a form of "civil death."[133] It also includes new types of concerns around the right to privacy, data protection, and cybersecurity, due to the surveillance, control, and manipulation that are afforded to public and private actors under these new digital systems. Finally, digital systems can reverse progress that has already been made on access to rights for marginalized groups.

C. **Failing to deliver the promised human rights benefits of inclusion, efficiency, and development for the most vulnerable:** Balanced against these harms, the benefits of foundational digital ID systems remain mostly hypothetical at present. Many of the claims that such systems will enable greater inclusion—particularly through financial inclusion—generate efficiency and savings for government, and spur economic development, remain unsupported by a robust evidence base.

A. Increasing the 'Efficiency' of Human Rights Violations

Numerous human rights harms arising from identification systems are not unique to digital systems, but are common to all formal identification systems, especially those legally linked to recognition, nationality, or access to rights.[134] Systems of registration and identification have often been used for direct and indirect discrimination, both *de facto* and *de jure*. This has affected minority groups, older persons, women, persons with disabilities, the chronically ill, internally displaced persons, migrants and asylum seekers. For instance, identification systems have been a common means of excluding certain groups from many of the benefits of citizenship, rendering them stateless, and cut off from any form of

[132] Gautam Bhatia, "Notes From a Foreign Field: The Kenyan High Court's Judgment on the National Biometric ID System," *Indian Constitutional Law and Philosophy* (blog), February 8, 2020, https://indconlawphil.wordpress.com/2020/02/08/notes-from-a-foreign-field-the-kenyan-high-courts-judgment-on-the-national-biometric-id-system/.
[133] Ananthakrishnan G, "Aadhaar Hearings Begin in Supreme Court: Civil Death vs State's Role in Question," *The Indian Express*, January 18, 2018, https://indianexpress.com/article/india/petitioners-to-sc-aadhaar-can-cause-civil-death-of-person-5028569/.
[134] Bronwen Manby, "The Sustainable Development Goals and 'Legal Identity for All': 'First, Do No Harm,'" *World Development* 139 (March 2021): 105343, https://doi.org/10.1016/j.worlddev.2020.105343; James Ferguson, "What Comes After the Social? Historicizing the Future of Social Assistance and Identity Registration in Africa," in *Registration and Recognition: Documenting the Person in World History*, ed. Keith Breckenridge and Simon Szreter (British Academy, 2012), https://britishacademy.universitypressscholarship.com/view/10.5871/bacad/9780197265314.001.0001/upso-9780197265314-chapter-20; Caplan and Torpey, *Documenting Individual Identity*.

legal recognition.[135] A notable example is that of the Rohingya group who have long been marginalized by the government of Myanmar and coerced into accepting documents which deny their citizenship.[136] This has rendered many Rohingyas stateless and contributed to their violent persecution.[137]

These discriminatory trends often continue when systems are digitalized without broader reforms to existing legal frameworks, policies, and practices. For instance, in Kenya, individuals belonging to the Nubian and Somali-Kenyan communities have fought a long and protracted legal battle to be recognized as citizens.[138] In the past, harsh vetting procedures have been applied when members of these groups seek identity documents, in order to make their inclusion as citizens more difficult.[139] To register for Kenya's new digital ID, the Huduma Namba, individuals were required to present existing identification documents, thus carrying pre-existing discrimination and exclusion into the new system.[140] Furthermore, the introduction of the new Huduma Namba system through a Money Bill that did not allow for sufficient participation and consultation meant that much of the progress that had been made on gaining access to citizenship rights was disregarded in the design of the new system.

Often, the process of building a new identification system or upgrading an old system becomes an opportunity to formalize existing patterns of exclusion rather than to carry over any progress. In Uganda, the Maragoli community has similarly been fighting for legal recognition since they were first excluded as a recognized tribe in the country's constitution. Since the tribe was not constitutionally recognized, the digital registration form for the new digital ID system simply did not provide an option to declare oneself as a member of the Maragoli tribe.[141] The digital system not only carried this discrimination into the new system, it *solidified* exclusion by coding it into the very digital architecture of the system and by conditioning access to other public services on presentation of the national ID. Massive data collection exercises can also be used to narrow or harden group categories which had previously been more fluid, through applying fixed labels. New digital systems can reduce the opportunities for formal workarounds and also deny many

[135] "A clear pattern has emerged from case studies around the world of states manipulating citizenship, in either law or practice, to marginalize and disenfranchise vulnerable groups such as racial and ethnic minorities and women. This is occurring in flagrant violation of well-established human rights principles, particularly the universal anti-discrimination norm. In order to combat statelessness and the discriminatory manipulation of race and ethnicity in granting, withholding, and withdrawing nationality, the Justice Initiative calls for the development of a comprehensive approach to enforce the prohibitions on discrimination, statelessness, and arbitrary deprivation of nationality and the creation of an effective institutional framework that will guarantee the universal right to a nationality." Open Society Justice Initiative, "Human Rights and Legal Identity: Approaches to Combating Statelessness and Arbitrary Deprivation of Nationality," 2006, https://www.justiceinitiative.org/uploads/427de178-aaaa-4237-b566-c6432cab47d3/identity_20060501.pdf.

[136] Natalie Brinham et al., "Locked in and Locked Out: The Impact of Digital Identity Systems on Rohingya Population" (Institutes on Statelessness and Inclusion, November 2020).

[137] Natalie Brinham, "When Identity Documents and Registration Produce Exclusion: Lessons from Rohingya Experiences in Myanmar," *Middle East Centre* (blog), May 10, 2019, https://blogs.lse.ac.uk/mec/2019/05/10/when-identity-documents-and-registration-produce-exclusion-lessons-from-rohingya-experiences-in-myanmar/.

[138] African Committee of Experts on the Rights and Welfare of the Child, Decision on the Communication Submitted by the Institute for Human Rights And Development in Africa and the Open Society Justice Initiative (On Behalf of Children of Nubian Descent in Kenya) Against the Government of Kenya, Communication: No. Com/002/2009, March 22, 2011.

[139] Kenya National Commission on Human Rights, "An Identity Crisis? A Study on the Issuance of National Identity Cards In Kenya," 2007, http://knchr.org/Portals/0/EcosocReports/KNCHR%20Final%20IDs%20Report.pdf.

[140] Keren Weitzberg and Yussuf Bashir, "Rapid Response Report: Digital ID in Kenya," September 2021, 21; Keren Weitzberg, "In Kenya, Thousands Left in Limbo without ID Cards," *Coda Story* (blog), April 13, 2020, https://www.codastory.com/authoritarian-tech/kenya-biometrics-double-registration/.

[141] Sandrine Perrot and Gerald Owachi, "L'enregistrement biométrique des « autres »," *Geneses* n° 113, no. 4 (December 12, 2018): 122–43, https://www.cairn.info/revue-geneses-2018-4-page-122.htm.

of the changes in personal identity that might be associated with these systems.[142] This was the case in the Dominican Republic when a landmark lawsuit in 2013 stripped local Haitian descendants of their citizenship and excluded them from healthcare, welfare, and education.[143] Research by Eve Hayes de Kalaf has shown how international organizations, including the World Bank, "looked the other way" as this process of discrimination was carried out, and continued to support the government as it used the national ID as a tool of exclusion.[144]

Moreover, the reliance on a single system which makes authoritative pronouncements about identity and identification means that that any failure—in process, technology, or through simple human error—is punished significantly and extensively.[145] Some critics have called this process "civil death."[146] This is tied to the fact that foundational digital ID systems are centralized and linked to various forms of public and private service delivery systems. As a result, failure to successfully register within the central system means being cut off from virtually all aspects of life.[147] This dynamic has recently been demonstrated in Nigeria, where the government required SIM cards to be linked with National Identity Numbers (NIN). Over 73 million phone accounts have since been disconnected because millions of Nigerians—while they are likely legally eligible to register for the NIN—have not yet been able to acquire a NIN number.[148] This was a predictable outcome, given that the Nigerian NIN only covers about 40% of the population.

In a digital twist on neocolonial dynamics, these exclusionary impacts have been exacerbated by the fact that they have often been deployed in experimental ways on individuals in the Global South.[149] For instance, there has been a significant focus on sub-Saharan Africa, home to at least half of the so-called 'invisible billion.'[150] This is often presented as an opportunity. Through digital technologies, less developed nations can 'leapfrog' over developed nations. They can thereby avoid the pitfalls of older legacy

[142] Silvia Masiero and Soumyo Das, "Datafying Anti-Poverty Programmes: Implications for Data Justice," *Information, Communication & Society* 22, no. 7 (June 7, 2019): 18, https://doi.org/10.1080/1369118X.2019.1575448.

[143] "Not only did it provide the financial assistance to the authorities as a means to encourage more robust structural adjustment reforms, it also acted as the mediator between politicians and technical specialists to oversee the distribution of documentation. The World Bank therefore was absolutely central to the expansion of legal identity and in pushing Dominican nationalists to agree to the uptake of legal identity as a means to register those citizens the authorities deemed eligible to receive their documentation." Eve Hayes de Kalaf, *Legal Identity, Race and Belonging in the Dominican Republic* (London and New York: Anthem Press, 2022), 44, https://anthempress.com/legal-identity-race-and-belonging-in-the-dominican-republic-hb.

[144] Eve Hayes de Kalaf, "How Some Countries Are Using Digital ID to Exclude Vulnerable People around the World," *The Conversation* (blog), August 3, 2021, http://theconversation.com/how-some-countries-are-using-digital-id-to-exclude-vulnerable-people-around-the-world-164879.

[145] Asian Development Bank, "Legal Identity for Inclusive Development" (Philippines: Asian Development Bank, 2007), 73.

[146] Ananthakrishnan G, "Aadhaar Hearings Begin in Supreme Court: Civil Death vs State's Role in Question," *The Indian Express*, January 18, 2018, https://indianexpress.com/article/india/petitioners-to-sc-aadhaar-can-cause-civil-death-of-person-5028569/.

[147] Usha Ramanathan, "Biometrics Use for Social Protection Programmes in India Risk Violating Human Rights of the Poor," *Social Protection and Human Rights* (blog), accessed June 14, 2020, https://socialprotection-humanrights.org/expertcom/biometrics-use-for-social-protection-programmes-in-india-risk-violating-human-rights-of-the-poor/.

[148] Ayang Macdonald, "Nigeria's Move to Link Digital Identity Numbers to SIM Cards Sparks Lawsuit," *Biometric Update*, February 2, 2021, https://www.biometricupdate.com/202102/nigerias-move-to-link-digital-identity-numbers-to-sim-cards-sparks-lawsuit.

[149] For an account of how a digital ID system can be used to experiment on food subsidies for the poor, *see* Anumeha Yadav and Reetika Khera, "On the Margins of Aadhaar: The Living Dead, and Food 'Disruptions,'" in *Dissent on Aadhaar: Big Data Meets Big Brother* (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019).

[150] World Bank, "1.1 Billion 'Invisible' People without ID Are Priority for New High Level Advisory Council on Identification for Development," *World Bank Blogs* (blog), October 12, 2017, https://doi.org/10/12/11-billion-invisible-people-without-id-are-priority-for-new-high-level-advisory-council-on-identification-for-development.

systems, namely CRVS, to directly adopt the most modern technologies.[151] However, this 'leapfrogging' ideal is highly uncertain and often ignores the experiences of countries in the Global North who have adopted different models of identification. Moreover, within less developed countries, welfare programs including cash transfers, pensions, government payroll systems, and SIM registration have generally been selected as early use cases to demonstrate efficiencies and cost savings of digital ID systems.[152] Poorer individuals accessing these services often have the greatest need for assistance, but also face some of the steepest barriers for accessing any formal identification system. This is especially the case when such systems are biometric or digital. But governments are turning anti-poverty programs into digital test cases with sometimes tragic results.

B. New Forms of Harm: 21st Century Technologies, 21st Century Exclusion

New exclusions are also now being created through the use of digital ID systems. One group of impacts relates to the use of biometrics. These technologies, which are prone to inaccuracies, often indirectly discriminate against those who are most marginalized. For instance, manual laborers have often been excluded from ID systems because their fingerprints are worn. People with physical disabilities have been excluded because their bodies are not 'readable' by the scanners. People have also been unable to authenticate their identities if their hands are too cold or if the climate is too humid to allow for accurate scans. Biometric technology often does not function well in real-life situations.[153] They are probabilistic and not deterministic[154] and prone to racial bias.[155] Certain kinds of biometrics also entail stigma. For instance, there is a connotation of criminality attached to fingerprints.[156] Algorithmic de-duplication processes, which are meant to ensure that each record within a database is unique, are also often inaccurate, leading to exclusion of

[151] Jaap van der Straaten, "Plutocratic State. Elite Privilege and Bungled Identity Management at the Jugular of Democracy in Ghana.," 2021, 21, https://doi.org/10.13140/RG.2.2.35417.24163; World Bank Africa Region and China Development Bank, "Leapfrogging: The Key to Africa's Development?" (Washington, DC: World Bank Group, 2017), http://documents.worldbank.org/curated/en/121581505973379739/pdf/Leapfrogging-the-key-to-Africas-development-from-constraints-to-investment-opportunities.pdf; David Pilling, "African Economy: The Limits of 'Leapfrogging,'" *Financial Times*, August 13, 2018, https://www.ft.com/content/052b0a34-9b1b-11e8-9702-5946bae86e6d.

[152] World Bank, "Project Appraisal Document: Nigeria Digital Identification for Development Project (P167183)," January 30, 2020, para. 113, https://documents1.worldbank.org/curated/en/250181582340455479/pdf/Nigeria-Digital-Identification-for-Development-Project.pdf.

[153] James L Wayman, Antonio Possolo, and Anthony J Mansfield, "Fundamental Issues in Biometric Performance Testing: A Modern Statistical and Philosophical Framework for Uncertainty Assessment," May 2021, 16–17; UK Government Office for Science, "Biometrics: A Guide," June 15, 2018, 5; Ursula Rao, "Biometric Bodies, Or How to Make Electronic Fingerprinting Work in India," *Body & Society* 24, no. 3 (September 1, 2018): 68–94, https://doi.org/10/gd5qvd.

[154] Jeremy Wickins, *The ethics of biometrics: the risk of social exclusion from the widespread use of electronic identification*, 13 Science and Engineering Ethics 45–54 (2007), http://link.springer.com/10.1007/s11948-007-9003-z (last visited Dec 14, 2021).

[155] Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism,* 2018, https://nyupress.org/9781479837243/algorithms-of-oppression; Joy Adowaa Buolamwini, "Gender Shades : Intersectional Phenotypic and Demographic Evaluation of Face Datasets and Gender Classifiers" (Thesis, Massachusetts Institute of Technology, 2017), https://dspace.mit.edu/handle/1721.1/114068.

[156] Joy Adowaa Buolamwini, "Gender Shades : Intersectional Phenotypic and Demographic Evaluation of Face Datasets and Gender Classifiers" (Thesis, Massachusetts Institute of Technology, 2017), https://dspace.mit.edu/handle/1721.1/114068; Cynthia M. Cook et al., "Demographic Effects in Facial Recognition and Their Dependence on Image Acquisition: An Evaluation of Eleven Commercial Systems," *IEEE Transactions on Biometrics, Behavior, and Identity Science* 1, no. 1 (January 2019): 32–41, https://doi.org/10/gpb6qr; Ursula Rao, "Biometric Bodies, Or How to Make Electronic Fingerprinting Work in India," *Body & Society* 24, no. 3 (September 1, 2018): 68–94, https://doi.org/10/gd5qvd.

eligible individuals.[157]

The centralization or concentration of data facilitated by such de-duplication efforts—which has been made possible by digital technologies—also leads to significant new risks. This has happened even in countries that already have a functioning national ID system, such as Mexico, where draft legislation has been introduced to move towards a new centralized database.[158] Identification systems based on the amassing of data in centralized databases can open individuals and communities to new forms of harm and discrimination, surveillance in public and private spaces, novel forms of algorithmic injustice, and increasingly difficult pathways to participation, transparency, accountability, and redress. Such digital, centralized systems also create new burdens on individuals by transforming a government's obligation to recognize individuals and groups, including by providing a legal identity, into a citizen's obligation to render themself increasingly visible, legible, and accessible to both the public and private sectors.[159] They also create new dangers when sensitive information, such as health information or DNA, is included in the centralized database or linked to the digital ID system.[160]

Moreover, the combination of digitalization and increasing bureaucratization of public services increase the distance between individuals and the state, particularly for those who have difficulty providing or accessing data about themselves.[161] For instance, the removal of discretion and human agency has fundamental implications for due process, redress, and informal systems of governance and commerce. When a person cannot prove who they are to the system, officers of the state may be powerless to grant them services or goods to which they are entitled.[162] Further still, digital ID often leads to inclusion without voice, as these systems concentrate power in centralized government institutions and in unreachable databases. Often these databases are designed and sometimes held by

[157] Ursula Rao and Vijayanka Nair, "Aadhaar: Governing with Biometrics," *South Asia: Journal of South Asian Studies* 42, no. 3 (May 4, 2019): 469–81, https://doi.org/10.1080/00856401.2019.1595343; Comptroller and Auditor General of India, "Report of the Comptroller and Auditor General of India on Functioning of Unique Identification Authority of India, Report No. 24 of 2021," 2021, https://cag.gov.in/webroot/uploads/download_audit_report/2021/24%20of%202021_UIDAI-0624d8136a02d72.65885742.pdf; Alizeh Kohari, "Life in Pakistan without a Digital ID," *Coda Story* (blog), November 3, 2021, https://www.codastory.com/authoritarian-tech/pakistan-biometrics-stateless/.

[158] Leo Schwartz, "The Dystopian Danger of a Mandatory Biometric Database in Mexico," *Rest of World*, November 3, 2021, https://restofworld.org/2021/the-dystopian-danger-of-a-mandatory-biometric-database-in-mexico/.

[159] Ranjit Singh and Steven Jackson, "Seeing Like an Infrastructure: Low-Resolution Citizens and the Aadhaar Identification Project," *Proceedings of the ACM on Human-Computer Interaction* 5, no. CSCW2 (October 13, 2021): 1–26, https://doi.org/10.1145/3476056; Jacqueline Hicks, "Digital ID Capitalism: How Emerging Economies Are Re-Inventing Digital Capitalism," *Contemporary Politics* 26, no. 3 (May 26, 2020): 330–50, https://doi.org/10.1080/13569775.2020.1751377; James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1999), https://yalebooks.yale.edu/9780300078152/seeing-like-a-state.

[160] Adi Kuntsman, Esperanza Miyake, and Sam Martin, "Re-Thinking Digital Health: Data, Appisation and the (Im)Possibility of 'Opting Out,'" *DIGITAL HEALTH* 5 (January 1, 2019): 2055207619880671, https://doi.org/10.1177/2055207619880671; Frank Hershey, "Nigeria's National Biometric ID Proposed to Go Digital, Add DNA," *Biometric Update*, August 16, 2020, https://www.biometricupdate.com/202008/nigerias-national-biometric-id-proposed-to-go-digital-add-dna.

[161] Ranjit Singh and Steven Jackson, "Seeing Like an Infrastructure: Low-Resolution Citizens and the Aadhaar Identification Project," *Proceedings of the ACM on Human-Computer Interaction* 5, no. CSCW2 (October 13, 2021): 1–26, https://doi.org/10.1145/3476056.

[162] "The combination of digital scanning and networked information radically alters the characteristics of bureaucratic forms, removing them from the world of paper-based documents, and – more importantly – from the domain of human agency. The best new forms of biometric identification are very fast, very accurate and, as the CIA's John Woodward advises, have 'no human decision-maker in the decision loop'. The economic and administrative benefits that follow from this removal of the 'human decision-maker' are ineluctably moving the South African state towards networked and computerised biometrics as the core practice of the state. Yet, as the CPS debacle in the Eastern Cape, and the massive chaos that has followed the similarly organised credit card driver's licence scheme have both shown, centralised databases are very blunt instruments, particularly badly suited to the task of repairing errors that are produced on the ground. This is because 'data-driven' government usually (not necessarily) disempowers local officials, who have limited rights to edit records, or change the rules embedded in the database. Implicit in the removal of the bureaucratic interpreter is the removal of all other kinds of subject-determined identity." Keith Breckenridge, *Biometric State: The Global Politics of Identification and Surveillance in South Africa, 1850 to the Present* (Cambridge: Cambridge University Press, 2014), 45, https://doi.org/10.1017/CBO9781139939546.

private companies. Rather than receiving a paper document that is considered property, the proof is held in a centralized database controlled by the government. Individuals lack opportunities to dissent or challenge these systems or fully investigate their ramifications. This is especially true since the purpose of digital ID systems is often vague and poorly defined. Their workings are woefully opaque to the public, and legal frameworks are all too often only introduced after the system has been rolled out.[163] This creates a significant accountability gap that can lead to irreversible damage.[164]

These changes represent a significant break from the past. Civil registration and identification systems have often been deeply rooted in the processes of state formation and the definition of the contours of the citizenry.[165] Digitalized systems, especially those based on biometrics, leave little room for traditional forms of contestation, and their instruments are much blunter and authoritarian. Existing exclusion is magnified and worsened—and new forms of exclusion arise. This can lead to the dismantling of existing welfare programs,[166] introduction of new forms of mediated surveillance,[167] and continuous privacy violations.[168] The speed and scale at which these new systems are launched worsens these problems.

C. Failing to Deliver for the Most Marginalized: Looking to India

In our experience, these exclusions are often presented as a risk which must be borne by the few while such systems positively impact human rights for the many. In other words, the needs of the excluded minority should be addressed but their experiences should not divert attention from the system's overall positive impacts. Not only does this run counter to the aspiration of the Sustainable Development Goals to 'leave no one behind,' many of the promised benefits for the empowered majority have failed to materialize. One

[163] This was a chief complaint in the Huduma Namba case in Kenya. Open Society Justice Initiative, "Nubian Rights Forum et al. v. the Honourable Attorney General of Kenya et al. ('NIIMS Case')," accessed March 14, 2022, https://www.justiceinitiative.org/litigation/nubian-rights-forum-et-al-v-the-honourable-attorney-general-of-kenya-et-al-niims-case.

[164] A World Bank document acknowledges as much, saying "As converging technologies become more automated and more decentralized, there is an accompanying lack of clarity about who will be held accountable for their potential and actual misuses. Furthermore, the technological supply chain is long and complex, involving training data, data centers, cloud-based computing services, fiber-optic networks, and highly specialized technical expertise, which is often distributed across the world. These weakly regulated supply chains of AI create pervasive cybersecurity and data security threats and a growing accountability gap, with vulnerable populations exposed to considerable harm and without recourse to legal remedies. Some damage could be irreversible and affect human rights … Thus there is an urgent need to develop and operationalize a "theory of no harm," based on a normative framework, and to undertake sociotechnical system analysis, which would contribute to the development of a strong governance framework that empowers human capital." Sajitha Bashir et al., "The Converging Technology Revolution and Human Capital: Potential and Implications for South Asia" (Washington, DC: World Bank Group, October 8, 2021), 95, https://doi.org/10.1596/978-1-4648-1719-9.

[165] For a discussion of how national ID cards became a tool of empowerment and state formation in Latin America, see José Ragas, "Turning Big Brother Upside down: Revisiting Surveillance from Latin America," *History Compass* 19, no. 11 (2021): e12695, https://doi.org/10.1111/hic3.12695.

[166] Silvia Masiero and Viktor Arvidsson, "Degenerative Outcomes of Digital Identity Platforms for Development," *Information Systems Journal* 31, no. 6 (2021): 903–28, https://doi.org/10.1111/isj.12351.

[167] José Ragas, "Turning Big Brother Upside down: Revisiting Surveillance from Latin America," *History Compass* 19, no. 11 (2021): e12695, https://doi.org/10.1111/hic3.12695; Shoshana Zuboff, *The Age of Surveillance Capitalism* (New York: PublicAffairs, 2017), https://www.publicaffairsbooks.com/titles/shoshana-zuboff/the-age-of-surveillance-capitalism/9781610395694/.

[168] Mizue Aizeki and Rashida Richardson, "Smart-City Digital ID Projects Reinforcing Inequality and Increasing Surveillance through Corporate 'Solutions'" (New York: Immigrant Defense Project, December 2021); Laura O'Brien, "Internet Access, Digital ID, Data Protection, Surveillance Controls: UPR Review Highlights Threats to Digital Rights," *Access Now* (blog), October 15, 2019, https://www.accessnow.org/internet-access-digital-id-data-protection-spyware-upr-review-highlights-threats-to-digital-rights/; Gus Hosein and Carly Nyst, "Aiding Surveillance: An Exploration of How Development and Humanitarian Aid Initiatives Are Enabling Surveillance in Developing Countries," *SSRN Electronic Journal*, 2013, https://doi.org/10.2139/ssrn.2326229; David Lyon, "Biometrics, Identification and Surveillance," *Bioethics* 22, no. 9 (2008): 499–508, https://doi.org/10.1111/j.1467-8519.2008.00697.x.

need only look to India, home to the world's largest digital ID project, to see this reality.[169] More importantly, it is critical to resist the tendency to prioritize the technology and regard harm to marginalized individuals as unfortunate but inevitable byproducts of technological progress. As human rights scholars, researchers, and advocates, it is imperative to prioritize the experiences of those who are marginalized.[170]

In this way, while Aadhaar might be the favored 'best practice' for digital ID systems, it is also an instance of best practice for those looking to contest these systems. A very broad assortment of different actors have looked at Aadhaar from different perspectives and attempted to map its impact on marginalized groups and their access to different services. For instance, the government of Assam was able to further entrench the marginalization of Muslim groups through citizenship vetting and disconnecting 'doubtful' citizens from all public services via the Aadhaar registration and seeding process.[171] Aadhaar also introduced novel forms of exclusion, including failure to register biometrics, failure to link Aadhaar numbers to all records across different systems, and failure to biometrically authenticate at points of service.[172]

Despite its continued use as an exemplar, more evidence is also emerging to show that Aadhaar is failing to deliver on many of its promises of access, accuracy, and efficiency.[173] Claims about the potential savings resulting from Aadhaar have been

[169] The work on Aadhaar is too numerous to recite here, a few limited examples are: Reetika Khera, *Dissent on Aadhaar: Big Data Meets Big Brother* (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019), https://www.amazon.co.uk/Dissent-Aadhaar-Data-Meets-Brother/dp/9352875427; Usha Ramanathan, "Biometrics Use for Social Protection Programmes in India Risk Violating Human Rights of the Poor," *Social Protection and Human Rights* (blog), accessed June 14, 2020, https://socialprotection-humanrights.org/expertcom/biometrics-use-for-social-protection-programmes-in-india-risk-violating-human-rights-of-the-poor/; Anumeha Yadav and Menaka Rao, "Despite Glitches, Government Plans to Introduce Aadhaar Authentication at Health Centers," *Scroll.In,* October 12, 2016, http://scroll.in/pulse/818515/after-ration-shops-government-plans-to-start-aadhaar-authentication-at-health-centers; Silvia Masiero, "A New Layer of Exclusion? Assam, Aadhaar and the NRC," *South Asia @ LSE* (blog), September 12, 2019, https://blogs.lse.ac.uk/southasia/2019/09/12/a-new-layer-of-exclusion-assam-aadhaar-and-the-nrc/; Ursula Rao, "Population Meets Database: Aligning Personal, Documentary and Digital Identity in Aadhaar-Enabled India," *South Asia: Journal of South Asian Studies* 42, no. 3 (May 4, 2019): 537–53, https://doi.org/10.1080/00856401.2019.1594065; Ranjit Singh and Steven Jackson, "Seeing Like an Infrastructure: Low-Resolution Citizens and the Aadhaar Identification Project," *Proceedings of the ACM on Human-Computer Interaction* 5, no. CSCW2 (October 13, 2021): 1–26, https://doi.org/10.1145/3476056; Anumeha Yadav, "At Jharkhand Hearing, Adivasis Describe How Aadhaar Is a Barrier to Accessing Food, Pensions," *Scroll.In,* December 14, 2018, https://scroll.in/article/905587/at-jharkhand-public-hearing-adivasis-say-they-struggle-to-access-rations-pensions; *Access Now,* "Busting Big ID's Myths," Access Now (blog), October 5, 2021, https://www.accessnow.org/busting-big-ids-myths/.

[170] Seeta Peña Gangadharan and Jędrzej Niklas, "Decentering Technology in Discourse on Discrimination," *Information, Communication & Society* 22, no. 7 (June 7, 2019): 882–99, https://doi.org/10.1080/1369118X.2019.1593484.

[171] Silvia Masiero, "A New Layer of Exclusion? Assam, Aadhaar and the NRC," *South Asia @ LSE* (blog), September 12, 2019, https://blogs.lse.ac.uk/southasia/2019/09/12/a-new-layer-of-exclusion-assam-aadhaar-and-the-nrc/.

[172] Sohini Chowdhury, "'You Cannot Cancel Before Verification' : Supreme Court On Telangana Govt Cancelling 19 Lakh Ration Cards; Directs Field Verification," LiveLaw.In, April 27, 2022, sec. Top Stories, https://www.livelaw.in/top-stories/supreme-court-ration-cards-cancellation-telangana-govt-conduct-field-verification-197664; Jean Drèze and Vipul Paikra, "How Loopholes in Aadhaar-Enabled Payments Are Putting Poor People at Risk of Being Swindled," *Indian Express*, October 6, 2021, https://indianexpress.com/article/opinion/columns/aadhaar-enabled-payment-system-7552163/; Karthik Muralidharan, Paul Niehaus, and Sandip Sukhtankar, "Identity Verification Standards in Welfare Programs: Experimental Evidence from India," *NBER* Working Paper Series Working Paper 26744 (February 2020), https://doi.org/10.3386/w26744; Shiv Sahay Singh, "Death by Digital Exclusion? : On Faulty Public Distribution System in Jharkhand," *The Hindu*, July 13, 2019, sec. Other States, https://www.thehindu.com/news/national/other-states/death-by-digital-exclusion/article28414768.ece; Anumeha Yadav and Reetika Khera, "On the Margins of Aadhaar: The Living Dead, and Food 'Disruptions,'" in *Dissent on Aadhaar: Big Data Meets Big Brother* (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019); Anumeha Yadav, "Aadhaar Is a Legal Right, but the Government Can Suspend a Citizen's Number without Prior Notice," *Scroll.In*, March 23, 2017, https://scroll.in/article/831939/aadhaar-is-a-legal-right-but-the-government-can-suspend-a-citizens-number-without-prior-notice.

[173] For a comprehensive assessment of the Aadhaar project, see Reetika Khera, *Dissent on Aadhaar: Big Data Meets Big Brother* (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019), https://www.amazon.co.uk/Dissent-Aadhaar-Data-Meets-Brother/dp/9352875427.

debunked,[174] and studies have shown many different forms of exclusion. Moreover, a recent audit found a plethora of issues: data quality remains relatively poor, private companies have enjoyed free services, and Indian residents pay exorbitant amounts to remedy system errors.[175] Rather than providing proof of concept, Aadhaar shows how poorly the inclusive development 'façade' holds up in that context. As critics have noted, the only actors who seem to be reliably benefiting from Aadhaar are the private technology companies and financial institutions who lobbied for the system.[176] The Aadhaar experience shows that digital ID systems can reverse progress on human rights, make existing exclusion worse, and introduce significant new forms of harm—all without yielding significant benefits to individual people who have been coerced into sharing their personal and biometric data.

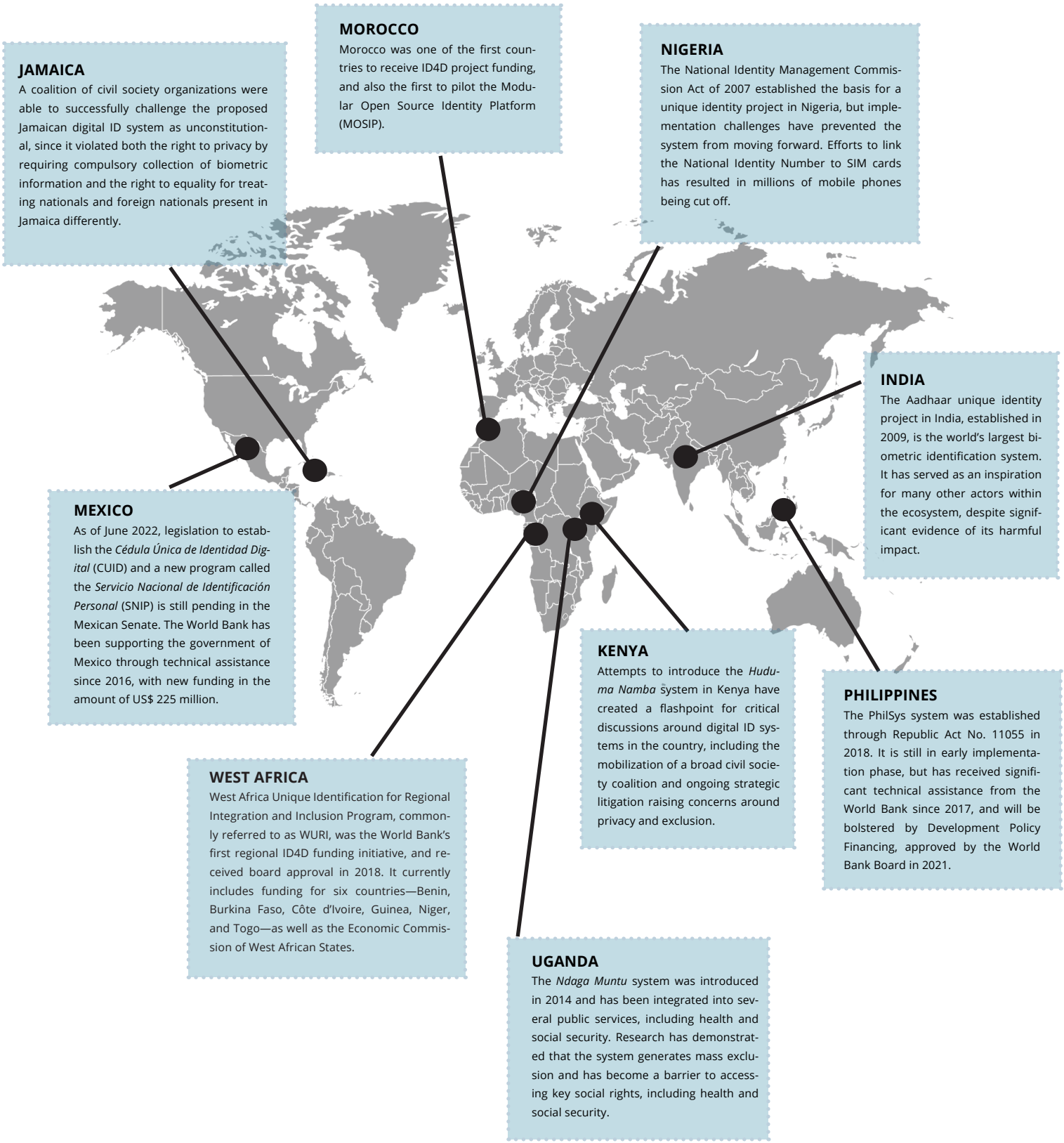
[174] "The Curious Case of the World Bank and Aadhaar Savings," The Wire, accessed November 9, 2021, https://thewire.in/economy/the-curious-case-of-the-world-bank-and-aadhaar-savings; Jean Drèze and Reetika Khera, "Aadhaar's $11-Bn Question: The Numbers Being Touted by Govt Have No Solid Basis," *The Economic Times,* February 8, 2018, https://economictimes.indiatimes.com/news/economy/policy/aadhaars-11-bn-question-the-numbers-being-touted-by-govt-have-no-solid-basis/articleshow/62830705.cms.

[175] Union Government, "Report of the Comptroller and Auditor General of India on Functioning of Unique Identification Authority of India," 2021.

[176] Usha Ramanathan, "Aadhaar—From Welfare to Profit," in *Dissent on Aadhaar: Big Data Meets Big Brother*, ed. Reetika Khera (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019).

2. DEVELOPING AN 'IDENTIFICATION FOR DEVELOPMENT' AGENDA

Figure 2. A small selection of countries and controversies related to digital ID systems.



In response to evidence of the litany of harms experienced as a result of digital ID systems, proponents argue that these systems will, in time, yield significant development benefits. Identification systems have long been on the agenda of international organizations and other members of the international development community. UNICEF and Plan International have done groundbreaking work on the promotion of birth registration and broader CRVS systems since at least the mid-1990s, including notable efforts by the UN Commission on Legal Empowerment of the Poor as a critical component to improving access to justice.[177] Identification systems were also identified in 2013 by the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda as important for achieving the SDGs.[178] Multilateral financial institutions such as the Inter-American Development Bank and the Asian Development Bank have done their own writing on the importance of legal identity.[179] Humanitarian actors such as UNHCR and the WFP have even built their own—albeit controversial—biometric identification systems, while other actors such as the ICRC[180] and Oxfam[181] have adopted a more cautious approach. Numerous other international organizations, bilateral donors, and funders have been experimenting with biometrics to deliver cash transfers and other aid.[182] National governments, most notably South Africa, have long experimented with biometric systems.[183] Nigeria, for instance, first signed a contract to create a new national identity database in 2001.[184]

Yet, until the early 2010s, no one spoke of 'identification for development' as a project that was inherently linked to 21st century technologies. As this section will show, a relatively small group of people working at or with the World Bank helped to actively reframe biometric, digital, and foundational ID systems as a key pillar of the international development agenda. From 2014 onwards, the Bank, through its ID4D Initiative, became an increasingly important center of activity for conceptualizing, promoting, and directly supporting a certain type of digital ID system. An important part of this story is Aadhaar, which became a source of inspiration and model for the development community. Aadhaar continues to shape the agenda today.

[177] Commission on Legal Empowerment of the Poor and United Nations Development Programme, *Making the Law Work for Everyone* (New York: United Nations, 2008), 32–33.
[178] High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, "A New Global Partnership: Eradicate Poverty and Transform Economies Through Sustainable Development" (New York: United Nations, May 30, 2013), 50, https://www.post2020hlp.org/wp-content/uploads/docs/UN-Report.pdf.
[179] Asian Development Bank, "Legal Identity for Inclusive Development," 2007; Asian Development Bank, "Identity for Development in Asia and the Pacific." (Manila: Asian Development Bank, 2016), https://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1461512; Mia Harbitz and Maria del Carmen Tamargo, "The Significance of Legal Identity in Situations of Poverty and Social Exclusion: The Link between Gender, Ethnicity, and Legal Identity" (Inter-American Development Bank, November 2009), https://publications.iadb.org/publications/english/document/The-Significance-of-Legal-Identity-in-Situations-of-Poverty-and-Social-Exclusion-The-Link-between-Gender-Ethnicity-and-Legal-Identity.pdf; Mia Harbitz and Juan Carlos Benítez Molina, "Civil Registration and Identification Glossary" (Inter-American Development Bank, 2010), https://publications.iadb.org/publications/english/document/Civil-Registration-and-Identification-Glossary.pdf.
[180] The International Committee of the Red Cross, "The ICRC Biometrics Policy," October 16, 2019, https://www.icrc.org/en/document/icrc-biometrics-policy.
[181] Oxfam and The Engine Room, "Biometrics in the Humanitarian Sector," May 2018, https://www.theengineroom.org/wp-content/uploads/2018/05/Oxfam-Report-May2018.pdf.
[182] Gelb & Clark found that it was not just WB, but also many other development actors including OAS, IDB, UNICEF, UNDP, bilateral agencies. Alan Gelb and Julia Clark, "Identification for Development: The Biometrics Revolution," *SSRN Electronic Journal,* 2013, 53, https://doi.org/10.2139/ssrn.2226594.
[183] Keith Breckenridge, *Biometric State: The Global Politics of Identification and Surveillance in South Africa, 1850 to the Present* (Cambridge: Cambridge University Press, 2014), https://doi.org/10.1017/CBO9781139939546.
[184] CIPESA, "Ecosystem Approach to Digital Identification Enrolment in Nigeria Risks and Opportunities," April 2022, https://cipesa.org/?wpfb_dl=498.

Figure 3. Timeline of selected events.

2007

NIGERIA: Passage of the National Identity Management Commission Act.

2009

INDIA: Establishment of the Unique Identification Authority of India (UIDAI).

2012

INDIA: First court case challenges Aadhaar on privacy grounds.

2013

Nandan Nilekani visits the World Bank and the Center for Global Development to present his vision for Aadhaar.

2014

Formation of the ID4D Working Group.

MEXICO: Mexico amends its Constitution to include a right to personal identity.

2015

NIGERIA: ID4D Diagnostic.

2016

MEXICO: ID4D Diagnostic.

Launch of the ECOWAS Biometric Identity Card.

Launch of the ID4D partnership platform and Multi-Donor Trust Fund

2018

WURI: World Bank Board approves funding for the first phase of *West Africa Unique Identification for Regional Integration and Inclusion* project, including ECOWAS, Côte d'Ivoire, and Guinea.

PHILIPPINES: Passage of Republic Act No. 11055 otherwise known as "Philippine Identification System Act."

2020

Launch of the Digitalizing G2P Payments (G2Px) program, with support from the Bill & Melinda Gates Foundation.

NIGERIA: World Bank Board approves funding for the Nigeria Identification for Development Project, co-financed by the European Investment Bank and Agence Française de Développement.

MEXICO: World Bank Board approves funding for Mexico National Digital Identity Program.

WURI: World Bank Board approves funding for WURI Phase II, including Togo, Burkina Faso, Niger, and Benin.

2021

PHILIPPINES: Approval of the Philippines Promoting Competitiveness and Enhancing Resilience to Natural Disasters Sub-Program 3 Development Policy Loan by the World Bank, which includes funding for PhilSys.

A. The Aadhaar Inspiration

First introduced in India in 2009, Aadhaar represented a new type of identification system that took advantage of digital and biometric technologies. What was most novel about Aadhaar, however, is that it specifically de-linked identification from citizenship and legal status. A person was not required to be an Indian national to register. Instead, it attempted to provide everyone (legally) in the country with a unique record in the Aadhaar database, seeking to answer only the question, *is this person who she says she is?* This was designed to be a foundational, (Aadhaar means 'foundation' in some Indian languages) multi-purpose system that could be leveraged by governments and the private sector. Indeed, Aadhaar provided a 'foundation' in that it provided the ability to stack different layers of services, such as digital payments, on top of an 'identification layer' that could be the basis for digital transactions. In other words, companies and government agencies looking to transfer and receive money could use the Aadhaar system as a way of checking whether a person matched a unique record in their own databases.

Aadhaar has always been an important source of inspiration for those working on identification for development. From the beginning, different groups at the Bank were tracking the ambitious ID project's progress. In 2011, for instance, the Consultative Group to Assist the Poor (CGAP), a partnership on financial inclusion operating out of the World Bank, released a brief report on India's Government-to-Person payment schemes (G2P)[185] and noted that "continued roll out of the unique identification number" known as Aadhaar "will enable the government to successfully scale the project."[186] CGAP officials met with personnel at the Unique Identification Authority of India (UIDAI) to learn more about Aadhaar and its role in financial inclusion,[187] and also presented to the World Bank in 2014.[188] They also began to take an interest in the government's flagship financial inclusion program, the Pradhan Mantri Jan Dhan Yojna.[189] Perhaps the key attraction of Aadhaar was that it showcased how technologies could 'scale.' The rate at which a government in the Global South could register 1.2 billion individuals was seen as evidence of the viability of foundational digital ID systems, especially when compared to the far slower progress within CRVS systems.

Nandan Nilekani, the charismatic architect of India's digital ID system, became an influential figure in 'selling' Aadhaar to the development community.[190] A co-founder of Infosys, India's second largest technology company, Nilekani stepped down from his position to become the Founding Chairman of the UIDAI. In 2013, Nilekani delivered a lecture on Aadhaar to the World Bank[191] where he highlighted the importance of Aadhaar

[185] G2P schemes are payment schemes from the government to persons, usually including social transfers as well as pensions.
[186] Paul Breloff and Sarah Rotman, "An Overview of the G2P Payments Sector in India" (Washington, DC: Consultative Group to Assist the Poor (CGAP), 2011), 2–9.
[187] Greg Chen, "India's Unique ID Could Generate Big Boost in Financial Access," CGAP, January 30, 2014, https://www.cgap.org/blog/indias-unique-id-could-generate-big-boost-financial-access.
[188] Samia Melhem, "Creating 1.2 Billion Unique EIDs."
[189] Access Now, "Busting Big ID's Myths," 27–28.
[190] Merrell Tuck-Primdahl, "IT Maven Nandan Nilekani Explains Unique I.D. System to Reach India's Masses," April 25, 2013, https://blogs.worldbank.org/developmenttalk/it-maven-nandan-nilekani-explains-unique-id-system-to-reach-indias-masses; "Forbes India - Nandan Nilekani:'This Is A Sales Job'," Forbes India, accessed May 9, 2022, https://www.forbesindia.com/interview/magazine-extra/nandan-nilekanithis-is-a-sales-job/2592/1.
[191] Nandan Nilekani, "The Science of Delivering On-Line IDs for a Billion People: The Aadhaar Experience" (World Bank, April 24, 2013), https://www.worldbank.org/en/events/2013/04/24/the-science-of-delivering-on-line-ids-for-a-billion-people-the-aadhaar-experience.

as a transactional system.[192] This led then-World Bank President Jim Kim to declare that digital identification would be a 'poverty killer' and a 'game changer.' Kim marveled that it could improve access to financial services, health tracing, corruption reduction, poverty alleviation, government efficiency, and perhaps many other areas.[193] That same year, Nilekani appeared at an event at the Center for Global Development where he described the approach to adopting Aadhaar, saying:

> "Our view was that there's bound to be opposition, right, so that's a given. So we said how do we address that? One was, do it quickly. Because if you do it quickly it's less likely to coalesce against you. The second was do it quietly, get it done. And third was we said that in any case there is going to be a coalition of opponents, so is there a way to create a positive coalition of people who have a stake in its success?"[194]

Admiration for Nilekani was shared by many. Bill Gates heralded his friend Nilekani as a "hero in the field."[195] A glowing review of Aadhaar in The Economist in 2011 boasted a headshot of Nilekani and stated, "The Unique Identification Authority of India, which is implementing the project, has chosen innovative ways to achieve scale and reach in a country with more than twice as many people as the European Union."[196] Through Nilekani and numerous others who worked on the UIDAI project, a growing interest in scaling similar digital ID systems emerged.[197] Nilekani and his colleagues would go on to yield a significant amount of influence over digital ID projects around the world.

B. Identification and Other Development Agendas

The 'biometrics revolution' did not originate with Aadhaar, but instead was part of a global interest in the technology that emerged in different places. For many governments, the initial interest was driven in no small part by the War on Terror and the increase in counterterrorism measures.[198] However, what is significant is the way that biometric systems were seized upon in various corners of the development community.

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[192] "Transactions normally require verification of identity. Aadhaar online authentication will provide a common platform which can be used across all transactions and other applications." World Bank, "DEC Lecture Nandan Nilekani Presentation," 16, https://thedocs.worldbank.org/en/doc/365321447690002793-0050022015/DEC-Lecture-Nandan-Nilekani-Presentation.

[193] Nilekani's message seemed tailored to appeal to Kim, who championed the idea of 'the science of delivery' as a means of addressing urgent policy concerns. World Bank, "India's Massive I.D. Program Exemplifies 'Science of Delivery,'" May 2, 2013, https://www.worldbank.org/en/news/feature/2013/05/02/India-8217-s-Massive-I-D-Program-Exemplifies-8216-Science-of-Delivery-8217; Merrell Tuck-Primdahl, "IT Maven Nandan Nilekani Explains Unique I.D. System to Reach India's Masses," April 25, 2013, https://blogs.worldbank.org/developmenttalk/it-maven-nandan-nilekani-explains-unique-id-system-to-reach-indias-masses; Adam Wagstaff, "So What Exactly Is the 'Science of Delivery'?," *World Bank Blogs* (blog), April 8, 2013, https://blogs.worldbank.org/developmenttalk/so-what-exactly-is-the-science-of-delivery.

[194] Center for Global Development, The Eighth Annual Richard H. Sabot Lecture: Technology to Leapfrog Development, Nandan Nilekani, 2013, https://www.youtube.com/watch?v=tt5bKFhXEx4.

[195] Gates, "Making the World's Invisible People, Visible."

[196] The Economist, 'India's identity revolution', 17 November 2011.

[197] Alan Gelb and Julia Clark, "Technology in the Tropics: A Visit to Bangalore," *Center For Global Development* (blog), October 11, 2012, https://www.cgdev.org/blog/technology-tropics-visit-bangalore; World Bank, "ID4D Practitioner's Guide: Version 1.0"; Identification for Development, "Peer-to-Peer Knowledge Sharing," World Bank, accessed October 25, 2021, https://id4d.worldbank.org/peer-to-peer; Nandan Nilekani, "The Science of Delivering On-Line IDs for a Billion People: The Aadhaar Experience."

[198] Lyon, "Biometrics, Identification and Surveillance"; Natasha Singer, "Never Forgetting a Face," *The New York Times,* May 17, 2014, sec. Technology, https://www.nytimes.com/2014/05/18/technology/never-forgetting-a-face.html; Nina Toft Djanegara (Privacy International), "Biometrics for Counter-Terrorism- Case Study of the U.S. Military in Iraq and Afghanistan," May 2021, https://privacyinternational.org/sites/default/files/2021-06/Biometrics%20for%20Counter-Terrorism-%20Case%20study%20of%20the%20U.S.%20military%20in%20Iraq%20and%20Afghanistan%20-%20Nina%20Toft%20Djanegara%20-%20v6.pdf.

Their agendas included:

- **Social protection and pensions:** Biometric and other identification technologies, especially when applied to cash transfer programs promoted by development actors, were seen as a means of reducing costs and improving efficiency in better identifying, targeting, enrolling, and paying recipients.[199] Such cash transfer programs were seen as particularly vulnerable to fraud and leakages, and too difficult to manage for poor countries without some form of biometric identification system. It was even suggested in the 2016 World Development Report that such technologies could replace weak institutions.[200] The ID4D Initiative continues to prioritize social welfare systems as early use cases for digital ID.

- **Financial Inclusion:** World Bank Group affiliates such as the Consultative Group to Assist the Poor, as well as actors such as the Better than Cash Alliance, seized on digital ID. This was seen as a way of delivering financial services to those living in poverty, who had previously stood outside of the formal economy and banking system, and who were deemed 'hard to reach' and identify.[201] There was also a growing interest in fintech, with the International Finance Corporation investing in fintech, mobile telecom,[202] biometrics and other corporate actors.[203] Foundations like Omidyar Network and BMGF also established fintech portfolios. Financial inclusion remains closely connected to the ID4D agenda, as is particularly evident in the newly launched sister initiative to ID4D, Government-to-Person Payments.

- **Building government capacity and infrastructure:** The poor capacity of

[199] Robalino and Weber IZA Journal of Labor Policy 2013, 2:12 http://www.izajolp.com/content/2/1/12 ("Developing countries can also exploit recent advances in information and communication technologies to facilitate administrative tasks, including the enforcement of eligibility conditions. A key element is the unique identification, authentication, and tractability of beneficiaries and contributors. Recent technologies such biometric identification can greatly enhance the cost structure and lead to improved error, fraud, and corruption prevention.")

[200] "For services and activities based on more routine tasks that are easy to monitor, digital technologies can improve outcomes rapidly and significantly—even when institutions are relatively weak. In effect, the technology substitutes for the institutions, as with cash transfers, licensing and registration services, and monitoring elections, all much improved by digital technologies in many low-income countries." World Bank, "World Development Report 2016: Digital Dividends" (Washington, DC: World Bank Group, January 1, 2016), 153, http://documents.worldbank.org/curated/en/961621467994698644/World-development-report-2016-digital-dividends-overview.

[201] Padmanabhan Balasubramanian et al., "Fintech For The Poor: Do Technological Failures Deter Financial Inclusion ?," n.d., 80. 2.3.2; Financial Action Task Force, "Digital ID enables regulators to simplify the Customer Due Diligence (CDD) requirements and lower the cost for DFS providers, without compromising on safety and integrity. In response to the lack of adequate documentation available to the poor, many countries have adopted a tiered approach to CDD wherein some basic accounts, including mobile money, can be opened with a reliable official identity document or, in some cases, with a letter from a community leader. The availability of an official ID that is universal, enables meeting the CDD requirements very straightforward. The availability of a Digital ID simplifies the process further by enabling the verification to be done remotely or at an agent location and by removing the need for maintaining paper records and copies...Further, digital ID is increasingly becoming central to the effectiveness of fintech models like open banking. Open banking relies on strong customer authentication to secure customers' consent for accessing their data and accounts. Digital ID can be leveraged for developing an industry-wide common, strong customer authentication infrastructure instead of having each institution develop their own."

[202] IFC has invested in the GSMA foundation along with the digital development team at the World Bank.

[203] Two examples include Net1, an 'anti-bank' that uses biometrics in some of its product offering and IrisGuard. Staff Reporter, "World Bank Unit Buys R1,6bn Stake in Net1," *TechCentral* (blog), April 12, 2016, 1, https://techcentral.co.za/world-bank-unit-buys-r16bn-stake-in-net1/194742/; International Finance Corporation (IFC), "IFC, IrisGuard to Support Financial Inclusion and Syrian Refugees in Jordan," February 13, 2018, https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=24502. For an account of Net1's influence on national government, *see* Adam Ray, "Locked In! How the South African Welfare State Came to Rely on a Digital Monopolist," March 11, 2021, https://chrgj.org/2021/03/11/locked-in-how-the-south-african-welfare-state-came-to-rely-on-a-digital-monopolist/; Keith Breckenridge, "The Global Ambitions of the Biometric Anti-Bank: Net1, Lockin and the Technologies of African Financialisation," *International Review of Applied Economics* 33, no. 1 (January 2, 2019): 93–118, https://doi.org/10.1080/02692171.2019.1523836.

governments in the Global South to produce and analyze vital data and statistics has long been on the development agenda as an impediment to service delivery, good governance, and economic growth. The 'scandal of invisibility,' particularly in public health,[204] had led organizations such as UNICEF, Plan International, and the Bank itself, to focus on birth registration[205] and scale up investments for CRVS.[206] Beyond CRVS, the ICT team[207]—and, later, the e-Government Global practice—at the Bank also argued that digital ID could benefit governments in other ways, including cost cutting and revenue generation, addressing regulatory issues, elections, and border management.[208]

- **Private sector development and enabling the digital economy:** One overall attraction of digital ID systems has been the supposed ability to spur significant growth across the digital economy.[209] Promised economic benefits also include the facilitation of trade and commerce;[210] enabling the growth of the fintech sector;[211] stimulating private sector development of new products, apps, and services;[212] and reducing cost barriers for private actors, including banks, in reaching new customers and conducting customer due diligence (CDD).[213] Consulting firms in recent years such as McKinsey[214] and the Boston Consulting Group[215] have worked to understand some of these claims and put numbers against new markets for digital ID and digital ID-enabled services. Although not claimed as openly, European biometrics giants such as Thales, Gemalto, and Idemia have also found new opportunities to sell their goods and services in the context of national digital ID systems.

Unlike the more militaristic applications of biometrics, these four areas shed a

[204] Philip W. Setel et al., "A Scandal of Invisibility: Making Everyone Count by Counting Everyone," *The Lancet* 370, no. 9598 (November 3, 2007): 1569–77, https://doi.org/10.1016/S0140-6736(07)61307-5; World Bank and World Health Organization, "Global Civil Registration and Vital Statistics Scaling up Investment Plan 2015–2024," May 28, 2014, 3 ("generate "reliable, complete, and timely information to understand and measure three key domains of health—the determinants of health, health status, and the health system.")

[205] United Nations Children's Fund, "Every Child's Birth Right: Inequities and Trends in Birth Registration," December 2013, https://www.unicef.org/publications/files/Birth_Registration_11_Dec_13.pdf.

[206] World Bank and World Health Organization, "Global Civil Registration and Vital Statistics Scaling up Investment Plan 2015–2024," May 28, 2014, https://openknowledge.worldbank.org/bitstream/handle/10986/18962/883510WP0CRVS000Box385194B-00PUBLIC0.pdf?sequence=1&isAllowed=y.

[207] World Bank, "Information and Communication Technologies: Results Profile," Text/HTML, April 13, 2013, https://www.worldbank.org/en/results/2013/04/13/ict-results-profile.

[208] For some critiques of this approach, see Ranjit Singh, "Give Me a Database and I Will Raise the Nation-State," *South Asia: Journal of South Asian Studies* 42, no. 3 (May 4, 2019): 501–18, https://doi.org/10.1080/00856401.2019.1602810; Silvia Masiero and Viktor Arvidsson, "Degenerative Outcomes of Digital Identity Platforms for Development," *Information Systems Journal* 31, no. 6 (2021): 903–28, https://doi.org/10.1111/isj.12351.

[209] "Companies—and their customers—stand to gain from the system too. Mr Nilekani talks of India stealing a march on other countries if firms have an easy, secure way of identifying their customers. Banks will be more likely to lend money to people they can trace. Mobile-phone firms will extend credit. Insurers will offer lower rates, because they will know more about the person they are covering. Medical records will become portable, as will school records. Ordinary Indians will find it easier to buy and sell things online, as ordinary Chinese already do. Just as America's Global Positioning System, designed for aiming missiles, is now used by everyone for civilian navigation and online maps, so might UID become the infrastructure for India's commercial services." The Economist, 'The Magic Number', 14 January 2012.

[210] World Bank, *#EveryID Has A Story: How Digital IDs Empower Women Cross Border Traders in East Africa,* 2018, https://www.youtube.com/watch?v=QOKs9KWu_ok&index=7&list=PLopq6yGfmFAt4QTZB2GjmcvKybZyeQccN&t=0s.

[211] World Bank, "Private Sector Economic Impacts from Identification Systems" (Washington, DC: World Bank Group, 2018), 1, https://doi.org/10.1596/31828.

[212] Ram Sewak Sharma*, The Making of Aadhaar* (Delhi: Rupa Publications, 2020), 170.

[213] *See e.g.,* Government of India Planning Commission, *UIDAI Strategy Overview* (April 2010): 41.

[214] McKinsey Global Institute, "Digital Identification: A Key to Inclusive Growth," April 2019, 128.

[215] Boston Consulting Group, "The Value of Our Digital Identity," 2012, https://2zn23x1nwzzj494slw48aylw-wpengine.netdna-ssl.com/wp-content/uploads/2017/06/The-Value-of-Our-Digital-Identity.pdf.

more positive light on these biometric systems. The implication was that biometrics were not only good for policing and the military, but could also be used to contribute to positive development outcomes. This transition away from biometrics as systems of coercion and control towards systems of inclusion and empowerment was emphasized in many early documents.

C. Establishing the ID4D Agenda

A relatively small group of people played an important role in this reframing of digital ID as a key pillar of development, and in shaping a role for the World Bank as an institution in this newly defined field. While not wanting to overestimate the importance of mere individuals, examining their role in this process illuminates the larger story of how an expansive ID4D agenda was developed. Without the vision and drive of some of the key people identified here, this agenda may look very different, or may not have emerged at all.

For instance, economist Alan Gelb in his early work particularly emphasized how digital ID could be applied to both governance and service delivery. Gelb was a long serving staffer at the World Bank, ultimately serving as the chief economist for the Africa region and staff director for the 1996 World Development Report, "From Plan to Market,"[216] before moving to the Center for Global Development (CGD). A series of papers from CGD were very influential in forming the core of the ID4D agenda.[217] In *Identification for Development: The Biometrics Revolution*, an oft-cited and highly influential 2013 publication, Gelb and Clark surveyed 160 cases of biometric technology being used to deliver different kinds of programming in developing countries.[218] CGD supported the World Bank in the drafting of the first version of the *Principles on Identification for Sustainable Development* in 2017, which is often referred to as 'soft law' for the identification for development community.[219]

Another key figure has been Joseph Atick, who currently heads the highly influential entity ID4Africa. ID4Africa self-identifies as an NGO movement, but has a tripartite structure of 'ambassadors' from national ministries and identification authorities, representatives of international organizations and the private sector,[220] that appears to be modelled on a traditional international organization. Their annual meetings have been described to us as 'a trade show' where the biometrics industry showcases its products and services. Members of the Bank's ID4D team regularly make appearances; indeed, the *Principles on Identification for Sustainable Development* were originally conceived at an

[216] Alan Gelb, Center for Global Development, https://www.cgdev.org/expert/alan-gelb.
[217] Gelb and Clark, "Identification for Development." Alan Gelb and Anna Diofasi Metz, "Confronting Risks," in *Identification Revolution: Can Digital ID Be Harnessed for Development?*, 2018, https://muse.jhu.edu/chapter/2059039/pdf.
[218] Alan Gelb and Julia Clark, "Identification for Development: The Biometrics Revolution – Working Paper 315," Center for Global Development, January 28, 2013, 50; Among those acknowledged in the paper are Roberto Palacios and Wyly Wade, both of whom worked on the Aadhaar system in India: https://www.linkedin.com/in/wylywade/details/experience/.
[219] Vyjayanti T. Desai et al., "Ten Principles on Identification for Sustainable Development," *World Bank Blogs* (blog), February 7, 2017, https://blogs.worldbank.org/digital-development/ten-principles-identification-sustainable-development.
[220] "Since inception, ID4Africa has invested in establishing and reinforcing a diverse identity community, which today consists of leading identity stakeholders from African governments, international development agencies and the private sector. Our institutional register counts more than 1000 institutions (predominantly from Africa) and over 10,000 active professionals as core partners in the Movement. Our tripartite community orientation is in alignment with the public-private partnerships we believe are required to realize the vision of the Movement, creating the environment where government agencies define the needs, industry innovates to meet them, and development agencies help finance and guide the activities that address them." ID4Africa, The ID4Africa Movement, 2019, https://www.id4africa.com/main/files/The_ID4Africa_Movement.pdf.

ID4Africa event.[221] The founder spent his early career building biometric facial recognition technology and then advocated for its application in the security field.[222] He found a particularly receptive audience in the United States following the events of September 11, 2001.[223] His company, L-1 Identity Solutions, would subsequently work on the Aadhaar system.[224] After several mergers, the company has now become part of Idemia.[225] Atick was an important force in the early days of ID4D at the Bank and co-authored an important early document for the World Bank titled, *Digital Identity Toolkit: A Guide for Stakeholders in Africa* in June 2014.[226] The document starts by claiming that "[d]igital identity, or electronic identity (eID), offers developing nations a unique opportunity to accelerate the pace of their national progress."[227]

Another key figure according to several people we interviewed for this report has been Robert Palacios, an economist working on social pensions, an important area of government for digital ID systems, who had spent time in India supporting the development of the Aadhaar system. In the aforementioned influential *Biometrics Revolution* publication, Palacios was credited, and he has continued to make contributions to subsequent publications of the ID4D Initiative,[228] including several of the 'country diagnostics' of identification systems in Africa, discussed in the following section.[229]

A formal ID4D working group was established in 2014, led by the World Bank's ICT program. The horizontal design of the working group was important because identification for development was neither a sector nor country specific and therefore did not have an operational 'home' at the World Bank. The working group would bring together many specialized workstreams that touched on digital ID and originally boasted representatives from 12 practice areas within the WBG.[230] These areas included digital development, social protection, financial inclusion, health, governance, gender, legal, and data, with the goal of "embedding in the dialogue and the projects among these sector teams."[231] The task of this working group was to bring together many of the existing strands of work on identification and to "conceptualize a coherent approach to how we should address the specific target

[221] Private conversations.
[222] Natasha Singer, "Never Forgetting a Face," *The New York Times,* May 17, 2014, sec. Technology, https://www.nytimes.com/2014/05/18/technology/never-forgetting-a-face.html
[223] Natasha Singer, "Never Forgetting a Face," *The New York Times,* May 17, 2014, sec. Technology, https://www.nytimes.com/2014/05/18/technology/never-forgetting-a-face.html. ("Then, a few months later, came the Sept. 11 terrorist attacks. Dr. Atick immediately went to Washington to promote biometrics as a new method of counterterrorism. He testified before congressional committees and made the rounds on nightly news programs where he argued that terrorism might be prevented if airports, motor vehicle departments, law enforcement and immigration agencies used face recognition to authenticate people's identities.")
[224] Usha Ramanathan, "Aadhaar—From Welfare to Profit," in *Dissent on Aadhaar: Big Data Meets Big Brother*, ed. Reetika Khera (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019).
[225] European Commission, DG Comp, "Case M.8258 - Advent International / Morpho, Regulation (EC) No 139/2004 Merger Procedure."
[226] ID4Africa, Historical Writings, https://www.id4africakhub.org/historical-writings.
[227] World Bank, "Digital Identity Toolkit: A Guide for Stakeholders in Africa" (Washington, DC: World Bank Group, June 2014), vii, https://openknowledge.worldbank.org/bitstream/handle/10986/20752/912490WP0Digit00Box385330B00PUBLIC0.pdf?sequence=1&isAllowed=y.
[228] Gelb and Clark, "Identification for Development." Palacios was acknowledged in many other documents including the Digital Identity Toolkit for Africa and the Identification for Development Africa Business Plan.
[229] World Bank Group, 'The State of Identification Systems: A Synthesis of Country Assessments' (2017); Other reports Palacios is credited in, often together with Alan Gelb and/or Joseph Atick, are: World Bank Group, 'Understanding Cost Drivers of Identification Systems' (2018); World Bank Group, 'Identification for Development: Africa Business Plan' (2018); World Bank Group, 'Public Sector Savings and Revenue from Identification Systems: Opportunities and Constraints' (2018); World Bank Group, 'Practitioner's Guide' (2019).
[230] World Bank, "Organization," World Bank, accessed October 25, 2021, https://www.worldbank.org/en/about/leadership.
[231] World Bank, "Who Is Involved | Identification for Development," *Identification for Development (*blog), accessed May 31, 2021, https://id4d.worldbank.org/who-is-involved.

[16.9] in the Sustainable Development Goals agenda and how we can support client countries."[232]

1. Justifying Digital ID: Inclusion and Human Rights

Perhaps learning from the Indian government and its Aadhaar project, the World Bank and its ID4D Initiative have done a thorough job of presenting digital ID as an enabler of inclusion and human rights. This continues to be the case, despite economist and prominent critic of Aadhaar Reetika Khera's condemnation of the "welfare façade" of Aadhaar, which has gradually fallen away in the Indian context.[233] The starting point for ID4D's work in presenting digital ID as an inclusive project has been to leverage the power of the World Bank as a collector of statistics and translating 'raw' data into meaningful indicators. We now commonly talk about the 'invisible billion,' the moniker given by the World Bank to those who cannot prove their legal identity.[234] But the one billion number was calculated using mainly self-reported datasets from national identification authorities, and also assumed that birth registration rates did not increase after 5 years of age.[235] The World Bank found that these individuals were likely poor and from lower income countries, thus—as the argument goes—could not be included in government programs and the formal economy to exercise their rights, because they cannot prove who they are.

Building on this basic premise, the World Bank then came to argue that providing proof of legal identity would help to: i) establish legal rights, such as nationality or refugee status, ii) facilitate access to public and private services, iii) increase financial inclusion, iv) build government capacity and statistics, v) open new opportunities for the private sector, vi) manage elections, and vii) promote safe orderly migration.[236] From the start, the ID4D working group were vocal advocates of digitalized ID systems as a means of remedying statelessness,[237] gender inequality,[238] child marriage,[239] and many other development issues. Never mentioned, however, are links to national security, military, and policing,

[232] Rajesh Mirchandani, "'Every SDG Target Needs a Form of Identification' – Podcast with Alan Gelb and Mariana Dahan," *Center For Global Development* (blog), November 3, 2015, https://www.cgdev.org/blog/every-sdg-target-needs-form-identification-podcast-alan-gelb-mariana-dahan.

[233] "The most forceful framing of Aadhaar was as an enabler of welfare. Identity and inclusion were the twin objectives that proponents used to sell the idea to the Indian public." Reetika Khera, 'Introduction', in: Reetika Khera (ed.), *Dissent on Aadhaar: Big Data Meets Big Brother* (2019): 4–5.

[234] World Bank Group, 'The Role of Identification in the Post-2015 Development Agenda' (2015): 7; World Bank Group, 'The State of Identification Systems: A Synthesis of Country Assessments' (2017): 16.

[235] Jaap van der Straaten, "Legal Identity for all, or not? On the measurement of birth registration completeness," (Surabaya: March 2022): 13, https://www.researchgate.net/profile/Jaap-Van-Der-Straaten/publication/359157696_Legal_identity_for_all_or_not_On_the_measurement_of_birth_registration_completeness/links/6235935b5b303e5c5aa8609d/Legal-identity-for-all-or-not-On-the-measurement-of-birth-registration-completeness.pdf?origin=publication_detail.

[236] These advantages have been argued in many publications, including in World Bank, "Principles on Identification for Sustainable Development Toward the Digital Age Second Edition"; World Bank, "Project Appraisal Document: Nigeria Digital Identification for Development Project (P167183)"; World Bank, "Project Appraisal Document: West Africa Unique Identification for Regional Integration and Inclusion (WURI), Using the Multiphase Programmatic Approach (P161329)"; World Bank, "Benin: Project d'Identification Unique Pour L'integration Regionale et l'Inclusion En Afrique de l'ouest (WURI) - Phase 2 - P169594," February 2020; World Bank, "Digital ID Toolkit: A Guide for Stakeholders in Africa," June 2014, https://www.id4africa.com/articles/DigitalIDToolkitforAfrica2014EN.pdf; World Bank, "Public Sector Savings and Revenue from Identification Systems: Opportunities and Constraint"; World Bank, "Private Sector Economic Impacts from Identification Systems."

[237] Mariana Dahan and John Edge, "The World Citizen: Transforming Statelessness into Global Citizenship," *World Bank Blogs* (blog), November 25, 2015, https://blogs.worldbank.org/digital-development/world-citizen-transforming-statelessness-global-citizenship.

[238] Mariana Dahan and Lucia C. Hanmer, "The Identification for Development (ID4D) Agenda : Its Potential for Empowering Women and Girls - Background Paper" (Washington, DC: World Bank, January 1, 2015), http://documents.worldbank.org/curated/en/859071468190776482/The-identification-for-development-ID4D-agenda-its-potential-for-empowering-women-and-girls-background-paper.

[239] Lucia Hammer and Marina Elefante, "The Role of Identification in Ending Child Marriage: Identification for Development" (Washington, DC: World Bank Group, 2016).

although these are often an explicit objective for governments introducing digital ID systems.[240]

Human rights were explicitly linked to this agenda, with digital ID presented as a powerful force enabling rights fulfillment. Thus, at a 2014 event entitled *Making Everyone Count*, then-Vice President for Global Practice Solutions, Keith E. Hansen, argued, "identification is integral to personhood … when we give somebody an identity, and the ability to prove that identity, we give them dignity; we say you exist, you count, and you have rights."[241] The ID4D strategy reinforces this by saying that:

> "Being able to prove one's identity is more than a convenience; it is needed to participate fully in society and exercise one's human rights. Identification is indispensable for ensuring access to educational opportunities, financial services, health and social welfare benefits, economic development, as well as increasing electoral participation. Identification is a key enabler for achieving development outcomes, because universal population registration gives individuals the documentation they need to secure recognition of their legal identity and their ensuing rights."[242]

As the UN Special Rapporteur on extreme poverty and human rights argued in the report on the World Bank as a 'human rights free zone,' the Bank has long invoked human rights in the context of what the author called its 'public relations policy' and in policy analyses.[243] But that does not necessarily mean that the Bank makes meaningful use of human rights norms in its operations.[244] Looking beyond the rhetoric to the Bank's actual engagement in terms of human rights in its digital ID operations shows us that rights-based language is quickly abandoned in practice.

2. The Contested Idea of Legal Identity

Although it has a longer history, the idea of 'legal identity' was codified as Sustainable Development Goal 16, Target 9, which calls for states to "provide legal identity for all,

[240] Ellie Aben, "Philippines' New National ID System Divides Opinions"; Center for Human Rights and Global Justice, Initiative for Social and Economic Rights, and Unwanted Witness, "Chased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons"; Privacy International, "Here's How a Well-Connected Security Company Is Quietly Building Mass Biometric Databases in West Africa with EU Aid Funds," *Privacy International* (blog), November 10, 2020, http://www.privacyinternational.org/news-analysis/4290/heres-how-well-connected-security-company-quietly-building-mass-biometric; Alizeh Kohari, "Life in Pakistan without a Digital ID."

[241] World Bank Group, "Making Everyone Count."

[242] Identification for Development, "Identification for Development Strategic Framework," January 25, 2016, 4, https://web.archive.org/web/20170206104935/http://pubdocs.worldbank.org/en/179901454620206363/Jan-2016-ID4D-Strategic-Roadmap.pdf.

[243] IJRC, "Special Rapporteur on Extreme Poverty: World Bank Is 'Human Rights-Free Zone,'" *International Justice Resource Center* (blog), October 27, 2015, https://ijrcenter.org/2015/10/27/special-rapporteur-on-extreme-poverty-world-bank-is-human-rights-free-zone/.

[244] *See also* Galit Sarfaty, *Values in Translation: Human Rights and the Culture of the World Bank* (Stanford: Stanford University Press, 2012), 16. (stating that human rights have "(i) arisen only very selectively—and usually marginally—in a practical programmatic context; (ii) been of little practical relevance in the discharge of the Bank's social safeguard functions and assessment procedures; and (iii) been of at least marginal or 'inspirational' relevance to the Bank's research agenda and substantive policy development". My interviews have confirmed this observation. Given evidence of Bank projects that have indirectly or directly led to large-scale human rights violations, the question remains as to why human rights have remained marginal for so many years.") [citations omitted].

including birth registration, by 2030."[245] The goal appears to be the outcome of a compromise between the various actors negotiating the SDGs, particularly regarding how this legal identity was to be defined and measured. As Bronwen Manby has written, "there is no international legal framework governing the right to an identity or to be issued official documentation later in life."[246] Birth registration, which was ultimately chosen as the indicator for SDG 16.9, is in many legal systems the foundation for legal recognition of nationality (and other rights based on membership of family, such as inheritance, or other custody of children), as it shows the name, place of birth, and parents, all of which may be essential to prove entitlement. There is no explicit reference to digital ID systems in the SDG target or indicator, although the negotiated term leaves some ambiguity as to how legal identity for all will be achieved.

A working group of UN agencies called the UN-Legal Identity Expert Group (UN-LIEG), worked with the World Bank to define legal identity as follows:

> "Legal identity is defined as the basic characteristics of an individual's identity, e.g., name, sex, place and date of birth conferred through registration and the issuance of a certificate by an authorized civil registration authority following the occurrence of birth. In the absence of birth registration, legal identity may be conferred by a legally recognized identification authority; this system should be linked to the civil registration system to ensure a holistic approach to legal identity from birth to death. Legal identity is retired by the issuance of a death certificate by the civil registration authority upon registration of death."[247]

This operational document refers mainly to the right to recognition before the law, encoded in the Universal Declaration of Human Rights in Article 6 and the International Covenant on Civil and Political Rights in Article 16. The right to nationality has also been well developed in some regions, particularly in Latin America. Mexico, for instance, has introduced constitutional amendments that include a standalone 'right to identity.' However, under most legal systems any right to an identity is more of a bundle of different rights, and the UN-LIEG also references many other associated civil and socioeconomic rights as dependent on legal identity.[248]

It is notable that both the ID4D Initiative and the UN Legal Identity Agenda therefore position themselves as pro-poor, rights-based agendas aimed at increasing inclusion and furthering both development and human rights. In practice, however, there has been a significant divergence in approach, most significant in the introduction of what we are calling economic or transactional identification.

3. All a Façade? The 'New Paradigm' of Economic or Transactional Identification

Though the World Bank and its ID4D Initiative claim that they advocate no single model of

[245] The final language of this target was a subject of debate for the OWG, with the Business and Industry Major Group suggesting that "public services for all" should be included in the final target and a group of children's rights organization pushing for the inclusion of "free and universal birth registration." Neither was included in the final target. Morning Hearings with Major Groups and other Stakeholders Twelfth Session of the Open Working Group on Sustainable Development Goals 16–20 June, 2014 Compilation of Amendments to Goals and Targets.

[246] Manby, "The Sustainable Development Goals and 'Legal Identity for All,'" 5–6.

[247] United Nations Legal Identity Expert Group, "United Nations Country Team: Operational Guidelines" (Geneva: United Nations, May 2020), 9, https://unstats.un.org/legal-identity-agenda/documents/UNCT-Guidelines.pdf.

[248] United Nations Legal Identity Expert Group, "United Nations Country Team: Operational Guidelines" (Geneva: United Nations, May 2020), 12–17, https://unstats.un.org/legal-identity-agenda/documents/UNCT-Guidelines.pdf.

identification, their approach to digital ID—and their vision of the digitally enabled future—is unmistakably inspired by Aadhaar. A current multi-phase World Bank project in West Africa, for example, offers a system that only establishes uniqueness and does not connect to any form of right.[249] Instead, much of the ID4D literature places an emphasis on what is sometimes called 'official identity,' or 'government-recognized identity,' 'foundational identity'—or sometimes just 'robust and trusted identity.'[250] This type of identification system is intentionally delinked from any form of legal status (such as nationality or residence) or entitlement (such as social security or health), but instead is merely an administrative process that recognizes a unique human individual exists at a given point in time from a particular population sample taken by a specific institution. Such systems may take the additional step of linking certain attributes, such as name, gender, location, or nationality, to this physical being and may potentially be combined with other systems that connect with rights and entitlements, such as a social registry or civil registry.

Indeed, another key aspect of this approach is that the focus is on identification as a process, and not on identity as a status. After all, legal identity may exist irrespective of whether it has been officially registered in a system. A review by the World Bank's Legal Department clarified as much in 2015, writing that "Legal identity is the intrinsic source of an individual's standing, and of his or her claim for inclusion and access. Registration, in contrast, can improve a system's ability to deliver services to identified claimants by recognizing and recording identities, but it is not always premised on inclusion. In fact, the rights and status bound up in legal identity are not inherently dependent on being recognized via a registration system."[251]

The goal then, is not so much identity as it is identification. The three interlinked processes of identification, registration, and authorization are an exercise of power. Through this process, one actor acknowledges or denies another actor's identity attributes. Individuals may be empowered through the process of identification, but such systems have long been used for the opposite purpose: to *deny* rights to certain groups and exclude them.[252] An early scoping report about ID systems and the risks of statelessness commissioned by ID4D acknowledges this:

> "Sophisticated ID programs cannot resolve such questions and may exacerbate the difficulties of those excluded. They need to be preceded by political dialogue and, where necessary, legal reforms to reduce the risk of exclusion. An understanding that legal identity exists in many forms encourages us to first ask which legal identity/identities we are seeking to advance and for what developmental ends."[253]

In attempting to sidestep these questions, the Bank has instead focused on specific

[249] World Bank, "Project Appraisal for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Phase 2," April 10, 2020, http://documents1.worldbank.org/curated/en/261151588384951057/pdf/Benin-Burkina-Faso-Togo-and-Niger-Second-Phase-of-West-Africa-Unique-Identification-for-Regional-Integration-and-Inclusion-WURI-Project.pdf.
[250] World Bank, "ID4D Practitioner's Guide: Version 1.0" (Washington, DC: World Bank Group, 2019), 25–26.
[251] Megan Brewer et al., "Mitigating Governance Risks in Identification Systems," 102.
[252] Natalie Brinham et al., "Locked in and Locked Out: The Impact of Digital Identity Systems on Rohingya Population" (Institutes on Statelessness and Inclusion, November 2020); Timothy Longman, "Identity Cards, Ethnic Self-Perception, and Genocide in Rwanda," in *Documenting Individual Identity,* ed. Jane Caplan and John Torpey, The Development of State Practices in the Modern World (Princeton University Press, 2001), 345–58, https://doi.org/10.2307/j.ctv301fxj.23; David Lyon, "National ID Cards: Crime-Control, Citizenship and Social Sorting," *Policing: A Journal of Policy and Practice* 1, no. 1 (January 1, 2007): 111–18, https://doi.org/10.1093/police/pam015.
[253] Alan Gelb and Mariana Dahan, "Reflections on the Future of Legal Identity," *Digital Development (World Bank Blogs)* (blog), April 28, 2015, https://blogs.worldbank.org/digital-development/reflections-future-legal-identity.

technological components that are considered crucial building blocks if governments want to deliver many of the benefits of digital ID systems.[254] A core set of characteristics, however, can be observed across many new digital ID systems, including the four case studies discussed throughout this report:[255]

- Establishing 'uniqueness' through biometrics.[256] This can include physiological attributes such as fingerprint, iris, face; behavioral attributes including gait, signature, keystroke patterns, voice pattern, or computer mouse usage.
- An electronic database that can serve as the 'single source of truth.' Interoperability and integration capabilities with multiple users. Data analysis capabilities to sort and classify data.
- Electronic credentials, which sometimes remove the need for a physical credential, such as a card.
- Mass enrollment of the population rather than a continuous operating model.[257]
- Use of mobile phones and offline applications to deliver remote services that are 'presenceless' or untethered to a specific physical location.

These are common, but not inevitable policy choices, as there is indeed no one model for digital identification systems; the World Bank states explicitly that "biometrics are not required or appropriate in all contexts."[258] However, despite their deeply personal and often immutable nature, they are not considered to be innately objectionable or intrusive. In fact, the Bank argues that the WURI project will use a minimal set of attributes, even though the dataset includes biometrics.[259] But a dataset that includes biometrics can hardly be labeled 'minimal.'

Using these components, such identification systems work to convert human

[254] World Bank, "Private Sector Economic Impacts from Identification Systems" (Washington, DC: World Bank Group, 2018), https://doi.org/10.1596/31828; World Bank, "Public Sector Savings and Revenue from Identification Systems: Opportunities and Constraint" (Washington, DC: World Bank Group, 2018), http://documents.worldbank.org/curated/en/745871522848339938/pdf/Public-Sector-Savings-and-Revenue-from-Identification-Systems-Opportunities-and-Constraints.pdf; World Bank, "ID4D Practitioner's Guide: Version 1.0" (Washington, DC: World Bank Group, 2019).

[255] World Bank, "Digital Identity Toolkit: A Guide for Stakeholders in Africa" (Washington, DC: World Bank Group, June 2014), 3–4, https://openknowledge.worldbank.org/bitstream/handle/10986/20752/912490WP0Digit00Box385330B00PUBLIC0.pdf?sequence=1&isAllowed=y.

[256] Indeed, despite claiming that biometrics are not necessarily the ID4D Initiative often underscores the importance of biometrics: "The choice of biometric technology deployed plays a vital role in making the ID systems robust and efficient." World Bank Group, 'Understanding Cost Drivers of Identification Systems' (2018): 7.

[257] "A typical foundational ID system has two distinct phases. Investments in the start-up phase (or mass enrolment phase) lead up to the enrolment of a majority (up to 90 percent) of the eligible population, while the steady state (or post-enrolment) operations phase of the ID program involves ongoing maintenance and registration of new entrants." Identification for Development, "Understanding Cost Drivers of Identification Systems" (Washington, DC: World Bank Group, 2018), 2, https://documents1.worldbank.org/curated/en/702641544730830097/pdf/Understanding-Cost-Drivers-of-Identification-Systems.pdf. Cf. Jaap van der Straaten, "Uganda's Sine Qua Non National ID - Without Which, Not," *SSRN Electronic Journal,* 2022, https://doi.org/10/gp8tgd.

[258] "Biometric recognition has rapidly proliferated in modern ID systems in part because it is currently the most accurate and efficient technology available for deduplicating large populations to ensure statistical uniqueness—particularly in countries without existing authoritative sources of identity information—and because it can provide a relatively high level of assurance during authentication. As such, biometrics can be a key ingredient in ensuring the trustworthiness of ID systems. At the same time, however, biometrics are not required or appropriate in all contexts. In particular, the collection and use of biometric data presents some particular data protection and exclusion risks and can significantly add to the cost of the ID system and add operational complexity. The choice to use biometrics—as well as the particular type of biometric data collected—should be informed by these risks and costs, as well as the objectives, planned use cases, and other constraints to the ID system identified in the planning phase." World Bank, "ID4D Practitioner's Guide: Version 1.0," 122.

[259] Defining fID as " a minimal set of attributes, such as biographic and biometric data, to exclusively describe an individual." World Bank, "Project Appraisal for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Phase 2," 3.

beings into legible, rationalized, and comparable data.[260] The identification that these systems enable is based on a series of individual transactions with different public and private actors that produces an image of the end-user.[261] This model is therefore built on the construction of autonomous economic actors who will have the capabilities necessary to potentially engage in formal economic markets.[262] This approach fits into a broader pattern of the World Bank's approach to economic rationality which has led to "micro-level institutional reforms with the aim of creating an autonomous individual who can be subject to the discipline of the marketplace."[263] The main challenges for these individuals is that they are not considered to be trustworthy until they have been verified through an identification system; only through this process can a service provider confidently enter into a transaction.

In this way, digital identification systems fit into an approach to digital governance which follows a model also developed in India through the so-called India Stack. This approach to the identification system 'stacks' software: it allows for other types of software to be built on top of this underlying 'identification layer' to fulfill different functions, such as allowing for digital payments, to populate other databases, and to power different forms of analytics.[264] India is far from the only country to embrace this approach,[265] and similar models can be seen in countries like Estonia and Singapore. This approach is now being adopted with World Bank support in places like the Philippines.[266]

Within this model, a specific role is prescribed for the government. CV Madhukar, former digital identity lead at Omidyar Network, has described national ID systems as having "inherent monopolies" over digital identification and authentication.[267] This is because the government leverages pre-existing legitimacy and trust, if it exists, enabling them to "mint" and authenticate data about individual identities.[268] Private and public sector institutions can then rely on this data to analyze information sets and make choices about who to transact with. In essence, many of these systems often do not focus on building capacity within government, but instead replace it with technological solutions to facilitate

[260] Marion Fourcade and Jeffrey Gordon, "Learning Like a State: Statecraft in the Digital Age," *Journal of Law and Political Economy* 1, no. 1 (2020), https://escholarship.org/uc/item/3k16c24g.

[261] Jaap van der Straaten, "Plutocratic State. Elite Privilege and Bungled Identity Management at the Jugular of Democracy in Ghana.," n. 32.

[262] Yan Carrière-Swallow, Manasa Patnam, and Vikram Haksar, "Stacking Up Financial Inclusion Gains in India," *International Monetary Fund* (blog), July 2021, https://www.imf.org/external/pubs/ft/fandd/2021/07/india-stack-financial-access-and-digital-inclusion.htm. ("Persuading people to open bank accounts was just the start, however. Nearly half of all bank accounts in India are inactive, meaning they never receive a deposit—the highest number of inactive accounts in the world (Demirguc-Kunt and others, 2018). Further progress depended on adding more layers to the stack").

[263] David Williams, "Constructing the Economic Space: The World Bank and the Making of Homo Oeconomicus," *Milennium: Journal of International Studies* 28, no. 1 (1999): 91. ("designed to create the particular form of subjectivity necessary for the market economy to function" as well as to "teach people the basic tenets of micro-economics, to promote various forms of capitalist accounting techniques, to see the connection between products and costs, to employ recognizably modern management practices, and to use a 'systematic' approach to problem solving.").

[264] India Stack, About, https://indiastack.org/index.html.

[265] The White House, "National Strategy for Trusted Identities in Cyber Space: Enhancing Online Choice, Efficiency, Security, and Privacy," April 2011.

[266] Minita Varghese and Faher Elfayez. "A Digital Philippines: Leveraging ID for a Digital Social Protection Delivery." *World Bank Blogs* (blog), March 31, 2022. https://blogs.worldbank.org/eastasiapacific/digital-philippines-leveraging-id-digital-social-protection-delivery.

[267] "Covid-19 Spurs National Plans to Give Citizens Digital Identities," *The Economist,* December 7, 2020, https://www.economist.com/international/2020/12/07/covid-19-spurs-national-plans-to-give-citizens-digital-identities. ("Mr Madhukar notes that because national digital-ID systems are inherent monopolies, a key requirement for most countries is to avoid the perils of being locked into a single proprietary technology. MOSIP allows them to work with multiple application vendors, and remain in overall control of the system.")

[268] Marion Fourcade and Jeffrey Gordon, "Learning Like a State: Statecraft in the Digital Age," **Journal of Law and Political Economy** 1, no. 1 (2020), https://escholarship.org/uc/item/3k16c24g.

commerce.[269] This is in some ways a new form of 'hollowing out' state capacity[270] because these systems shift responsibility, but not decision-making power, to governments. The Bank argues that this is ultimately a good thing, as it eliminates the ability of the state to use legal frameworks as tools of discrimination, writing:

> "Historically, ID systems have led to exclusion because of gaps in nationality laws and their application, having importunately negative impacts upon marginalized groups. However, as the proposed project will finance universal foundational ID systems aspiring to include all persons in the territory of the country, fear of discrimination on the basis of legal status (e.g., migrant labor, refugees, stateless persons) will be obviated."[271]

This neutralized form of digital ID allows for enhanced, more profitable private sector activity. But it does so by attempting to depoliticize intensely political, social, and economic choices about belonging and inclusion,[272] turning these into administrative or technological questions. Individuals are transformed into data subjects.[273] The experiences highlighted in section 1 show how impossible such a process of depoliticization often is.

The costs of this model have become quickly apparent. One such cost is that these systems are significantly more expensive than their predecessors. Despite promises of the efficiency of new technologies, this new paradigm is significantly more expensive than traditional approaches.[274] Research by Jaap van der Straaten assessing data on 26 ID systems launched between 2009–2019 has found that these ID systems were six times as costly as previous expenditure on civil registration.[275] This is also important given that ID systems often have a high failure rate. Another major risk is the rapid accumulation of data by public and private actors. As reported by Privacy International, in 2018 former ID4D Working Group coordinator Mariana Dahan gave a talk where she conceded: "But then something terrible happened, something unplanned. In a stream of high-profile security and privacy breaches…. the world realised that we are on the cusp of something critical

[269] Jacqueline Hicks describes this as 'digital ID capitalism', saying "Here, the collection of personal data is initially organised by the state, ostensibly for the purpose of a more efficient and convenient dispersal of state welfare payments. It is only made available for commercial exploitation (with some consent procedures) after it has been collected and organised by the state. The digital infrastructure which makes this possible is owned and operated by the state. It is in effect a kind of state digital capitalism, which in some ways makes it more vulnerable to politicisation." Jacqueline Hicks, "Digital ID Capitalism: How Emerging Economies Are Re-Inventing Digital Capitalism," *Contemporary Politics* 26, no. 3 (May 26, 2020): 330–50, https://doi.org/10.1080/13569775.2020.1751377.

[270] Reinsberg, Bernhard, Alexander Kentikelenis, Thomas Stubbs, and Lawrence King. "The World System and the Hollowing Out of State Capacity: How Structural Adjustment Programs Affect Bureaucratic Quality in Developing Countries." *American Journal of Sociology* 124, no. 4 (January 2019): 1222–57. https://doi.org/10.1086/701703.

[271] World Bank, "Project Information Document (PID): West Africa Unique Identification for Regional Integration and Inclusion - Phase 2 (P169594)," February 27, 2020.

[272] Carolyn Miller wrote that "In a complex technology, made rigid by its supporting context, it is easier to conceptually change reality than it is to rebuild the technical system. We do not consciously and deliberately change reality (we cannot will the bridge to hold when it won't); rather, we abdicate our understanding of reality to the terms of the technical system." Carolyn R. Miller, "Technology as a Form of Consciousness: A Study of Contemporary Ethos," *Central States Speech Journal* 29, no. 4 (December 1, 1978): 233, https://doi.org/10.1080/10510977809367983. *See also* Seeta Peña Gangadharan and Jędrzej Niklas, "Decentering Technology in Discourse on Discrimination," *Information, Communication & Society* 22, no. 7 (June 7, 2019): 884, https://doi.org/10.1080/1369118X.2019.1593484; Ngozi Nwanta, "Digital Identification and Inclusionary Delusion in West Africa," *Human Rights and Global Justice, NYU Law School* (blog), October 19, 2020, https://chrgj.org/2020/10/19/digital-identification-and-inclusionary-delusion-in-west-africa/.

[273] For a broader discussion, *see* John Cheney-Lippold, *We Are Data: Algorithms and the Making of Our Digital Selves* (New York: New York University Press, 2017); Joanna Redden, "Democratic Governance in an Age of Datafication: Lessons from Mapping Government Discourses and Practices," *Big Data & Society* 5, no. 2 (July 1, 2018): 2053951718809145, https://doi.org/10.1177/2053951718809145.

[274] Jaap van der Straaten, "Identification for Development It Is Not. 'Inclusive and Trusted Digital ID Can Unlock Opportunities for the World's Most Vulnerable'-A Review.," *SSRN Electronic Journal* 2020, 2020, 5, https://doi.org/10.13140/RG.2.2.19300.19841.

[275] Jaap van der Straaten, 5.

for our humanity. The risks of creation of an Orwellian system became too obvious to be ignored."[276]

The assumption, however, is that despite some of the risks, this form of identification remains a key *enabler* of inclusion and human rights.[277] This is assumed even if it does not, itself, confer rights. Digital ID is therefore seen as a necessary but not sufficient factor in the fulfillment of rights. This makes the promised benefits of inclusion and human rights ring rather hollow, since the foundational system is several steps removed from fulfilling those promises. Instead, by focusing on this new form of economic identity, the World Bank appears to have given up on the difficult task of negotiating questions about recognition, belonging, and identity and focused instead on a transactional approach that is at best agnostic on questions of human rights.

[276] Privacy International, "The Sustainable Development Goals, Identity, and Privacy."
[277] Mariana Dahan and Alan Gelb, "The Role of Identification in the Post- 2015 Development Agenda," July 1, 2015, 11.

3. IMPLEMENTING THE ID4D AGENDA

Figure 4. Known actors in the digital ID ecosystem.

NATIONAL GOVERNMENTS	INTERNATIONAL ORGANIZATIONS
Identification Agencies and Institutions Foreign and Donor Governments	United Nations Bodies Multilateral Development Banks Regional Bodies and Associations of States
PRIVATE SECTOR	**CIVIL SOCIETY**
Biometric and Identification Technology vendors Consulting and Advisory Firms Mobile Telecom Financial Services Other digital economy	Non-governmental organizations Private donors and funders Networks and Coalitions Researchers and Academics

How has ID4D, the World Bank Group, and the network of proponents of a certain type of digital ID system contributed to implementing the agenda described here? In this section, we attempt to answer this central question, with a focus on the particular role of the ID4D Initiative. The ID4D Initiative has organized its work along three pillars: i) thought leadership and analytics, ii) regional and country engagement, and iii) global platforms and convening.[278] Through its thought leadership activities, ID4D has been able to articulate core ideas about digital ID, discussed in the previous section. Specific publications are then used to support the global platforms and convening, by drawing in other actors and providing them with language and resources on best practices and principles. Meanwhile, country and regional engagement remains a core component of the ID4D Initiative's work, primarily through technical assistance services provided to national governments. This includes a formal 'diagnostic' process, fostering peer-to-peer knowledge exchanges, and direct technical support to countries considering investing in building or updating their digital ID systems as well as to World Bank country teams delivering new operational projects.

[278] Priyankar Bhunia, "World Bank's ID4D Initiative Launches Advisory Council to Advance Digital Identification as a Sustainable Development Priority," *OpenGov Asia (*blog), October 28, 2017, https://opengovasia.com/world-banks-id4d-initiative-launches-advisory-council-to-advance-digital-identification-as-a-sustainable-development-priority/.

Through these activities, the ID4D team takes on many roles, including that of facilitator, thought leader, advisor, convener, and funder.[279] The 'sales pitch' of the ID4D Initiative is that it thereby adds value.[280] But this is too passive of a description for the role of the ID4D Initiative at the World Bank. By acting as the global expert on matters relating to digital ID, it is actively attempting to shape a specific form of digital ID it sees as beneficial to development, inclusion and human rights. As a central node in a global ecosystem of other actors pushing for the implementation of digital ID systems, the work of the ID4D Initiative has had a significant impact on the development of digital ID systems.

A. Funding for and Governance of ID4D

Since 2016, ID4D has received over US$90 million in Donor commitments to an IBRD Multi-donor Trust Fund (Trust Fund No. 072728), and has received about US$67million in funds.[281] The Initiative was launched with a catalytic contribution from the BMGF in 2016 of just over US$10 million.[282] In 2017, ID4D received a further contribution from Omidyar Network of US$2 million in 2017, as well as a further US$2 million in 2019.[283] In November 2018, Australia through the Department of Foreign Affairs and Trade contributed approximately AU$4.35 million, and the UK Department for International Development (DFID) pledged GB£15 million in 2019. DFID noted that critical considerations in their decision to invest included ID4D's established role as a leader in the field of digital ID as well as the ability to leverage the funding power of the Bank.[284] The largest single supporter of the ID4D Initiative remains the Bill & Melinda Gates Foundation, who have contributed around US$27 million to date and have funding commitments running until January 2024.

[279] World Bank, "2021 Trust Fund Annual Report: Toward Greater Resilience" (Washington, DC: World Bank Group, 2021), 20, https://thedocs.worldbank.org/en/doc/44c24bb3d216f1efb43801d870aa0eb4-0060072021/original/TFAR-2021-FINAL.pdf. ("Provides a platform for partners to cohesively advance progress across ID4D's three pillars with a common vision and shared actions; Influences the World Bank Group's active and pipeline portfolio of ID and civil registration projects, including the work of more than 140 staff across sectors, with guidance on best practices and upstream technical assistance; and Shapes global approaches and a shared vision on identification and civil registration by convening a growing number of organizations to invest in this agenda and advance global public goods.")

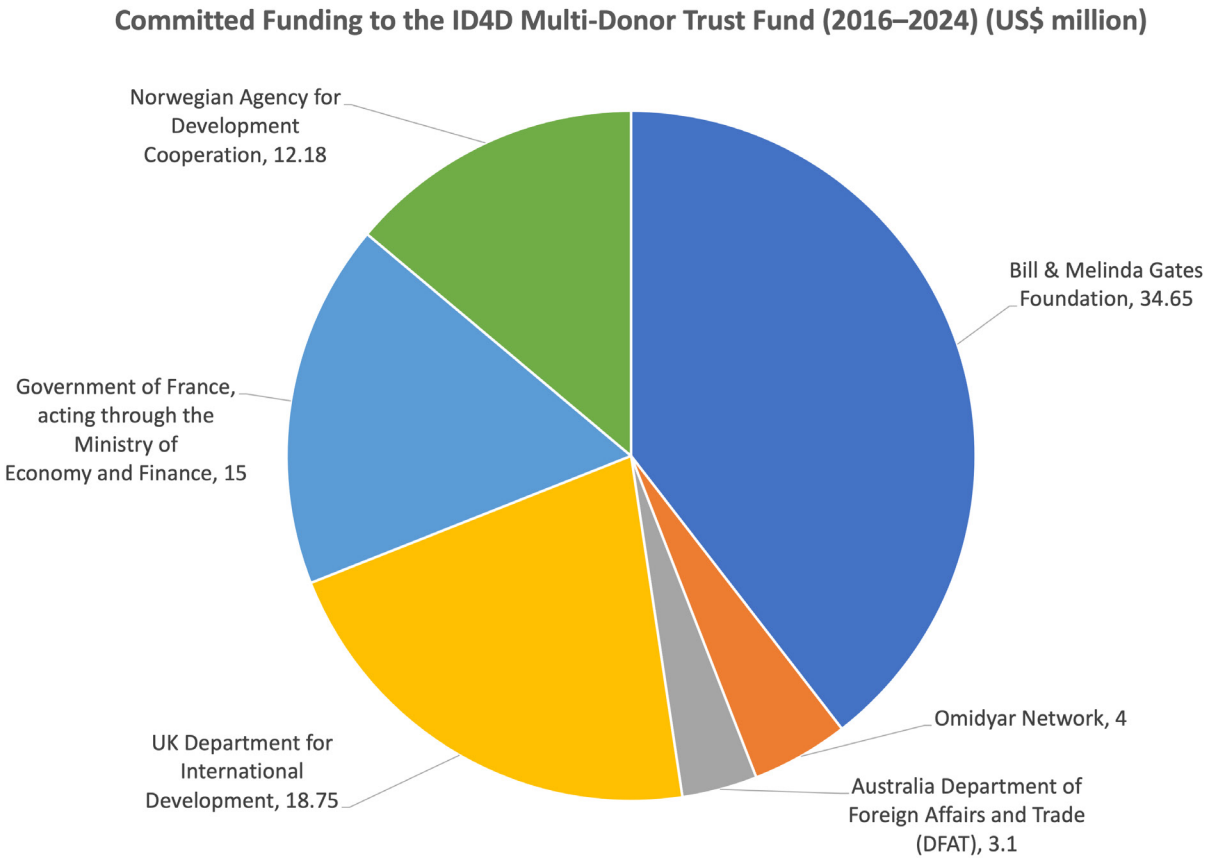
[280] World Bank, "Project Appraisal Document: Mexico National Digital Identity System to Facilitate Inclusion (P172647)," 20. ("WB can add substantial value to underpin the design and implementation of critical project activities such as the database harmonization and SNIP drawing on its global knowledge, technical expertise and lessons learned in the implementation of similar systems across the world. The World Bank can mobilize senior technical experts to support critical areas such as the definition of technical standards and data privacy and contribute a multisectoral perspective to ensure the comprehensive development of the identity ecosystem. The World Bank can also facilitate cross-sectoral dialogue and cooperation with key stakeholders of the identity ecosystem across the federal and subnational governments that is key for project success. No engagement with other development partners is foreseen in the implementation of this project.")

[281] World Bank, Finance Platform, last accessed June 07, 2022, https://ebizprd.worldbank.org/#/ebiz/dfi/onespaceprogramdirectory and Communication from World Bank ID4D Team, *see* Annex.

[282] Bill and Melinda Gates Foundation, "International Bank for Reconstruction and Development - Bill & Melinda Gates Foundation," October 2016, https://www.gatesfoundation.org/about/committed-grants/2016/10/opp1156618.

[283] Omidyar Network, "Responsible Technology," Omidyar Network, accessed May 23, 2022, https://omidyar.com/responsible-technology-partners/.

[284] UK Department for International Development, "Financial Case," 5.



Source: World Bank Projects Database, Administrative Agreements for Trust Fund No. TFO72 728

According to the Administrative Agreements signed with contributors, the Purpose of the Trust Fund was:

> "To facilitate access to service and rights for all people in developing countries by increasing the number of people in those countries who have an official recognized form of identification, through the provision of support to governments to build effective and inclusive identification systems using multi-sectoral approaches and 21st century solutions."[285]

Multi-donor trust funds are held separately from the funds of the WBG's main funding and financing arms: the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), and the International Finance Corporation (IFC). These trust funds are created by contributions from individual donors towards specific development projects. Donors can specify non-binding preferences as to how the funds are allocated. The UK Department for International Development, for example, cited a preference for country and regional action to go to Official Development Assistance (ODA) eligible countries.[286] Some trust funds are used to provide operational grants, loans, or guarantees for financing projects, similar to the operations of the IBRD

[285] World Bank, "Amendment No. 4 to the Administration Agreement between the Bill & Melinda Gates Foundation and the International Bank for Reconstruction and Development and the International Development Association Regarding the Identification for Development Multi-Donor Trust Fund (Trust Fund No. TF072728; Donor Reference No. INV-001321)," July 16, 2020.
[286] Foreign Commonwealth and Development Office, "Annual Review-Digital Identity as an Enabler for Development 2021," November 18, 2021.

and the IDA. However, the ID4D Trust fund is used to augment the Bank's administrative budget, primarily to fund Advice and Analytics Services to internal Bank operations and country teams.[287]

There have been some critiques of the Multi-donor Trust Fund model, including that it has led to fragmentation.[288] These funds do not fall under standard operational or administrative policies, for instance on reporting,[289] and are potentially more prone to capture by powerful donor interests. However, this model is still a popular one as it allows donors to have greater control over their contributions.[290] In a 2021 reform effort, ID4D was designated as one of the new 'Umbrella 2.0 programs' at the Bank. These Umbrella programs represent a new way of working by the Bank, which attempts to create greater coherence across its trust fundraising, and also to allow client countries to have more opportunities to access senior policy makers at the Bank.[291]

To reflect its key role and multi-sectoral focus, the ID4D Initiative is governed by a group of senior World Bank directors representing different sectors. It also relies on a formal internal working group from different global practices and departments: Digital Development; Jobs and Social Protection; Health, Nutrition, and Population; Finance, Competitiveness, and Innovation; Governance; Gender; Legal; and the Disruptive Technologies and Funds industry group of the IFC.[292] Their 2018 Annual Report reported that at least 140 staff across the Bank were working on ID related issues, albeit not as their full-time role. This work is facilitated by a small team of ID4D staff, as well as a large roster of external consultants. Due to the structure of the World Bank and the funding model used by the ID4D Initiative, the ID4D team functions much like an internal consulting firm to the Bank and its clients.

ID4D have also set up a high-level advisory council "chaired by a World Bank managing director and 11 global thought leaders from the private sector and government," which meets twice a year "with the aim of supporting global advocacy and providing a sounding board on emerging issues."[293] Minutes from these meetings are not currently publicly available. Members of the high-level advisory council are to "serve as ambassadors to influence the approaches of countries, development and humanitarian agencies and the private sector." The members of this council, shown below, reflect the different preferences reflected in the ID4D agenda. This includes the importance of a certain set of 'exemplar countries' such as Indonesia, Peru, Estonia, and India. It also reflects the importance of corporate actors and foundations, shown by the presence of individuals such as Nilekani, Eric Jing (Ant Group), and Mo Ibrahim (Mo Ibrahim Foundation and Celtel) on the Advisory

[287] Independent Evaluation Group, "Trust Fund Support for Development:An Evaluation of the World Bank's Trust Fund Portfolio" (Washington, DC: World Bank Group, 2011), 74, http://hdl.handle.net/10986/21345.
[288] Janelle Winters and Devi Sridhar, "Earmarking for Global Health: Benefits and Perils of the World Bank's Trust Fund Model," BMJ 358 (August 31, 2017): 3, https://doi.org/10.1136/bmj.j3394.
[289] Winters and Devi Sridhar, "Earmarking for Global Health: Benefits and Perils of the World Bank's Trust Fund Model," BMJ 358 (August 31, 2017): 3, https://doi.org/10.1136/bmj.j3394.
[290] Independent Evaluation Group, "Trust Fund Support for Development:An Evaluation of the World Bank's Trust Fund Portfolio" (Washington, DC: World Bank Group, 2011), 30, 50, http://hdl.handle.net/10986/21345.
[291] World Bank, "Partnering with the World Bank through Trust Funds and Umbrella 2.0 Programs," October 2020.
[292] Independent Evaluation Group (IEG), "Mobilizing Technology for Development An Assessment of World Bank Group Preparedness" (Washington, DC: World Bank Group, 2021), 54.
[293] Independent Evaluation Group (IEG), "Mobilizing Technology for Development: An Assessment of World Bank Group Preparedness" (Washington, DC: World Bank Group, 2021), 54.

Council, which has changed over time.

Members of the High-Level Advisory Council, current as of June 2022

- Mari Pangestu, World Bank Managing Director, Development Policy and Partnerships
- Dr. Amani Abou-Zeid, African Union Commissioner for Infrastructure and Energy
- Mr. Achim Steiner, UNDP Administrator
- Dr. Sri Mulyani Indrawati, Indonesian Minister of Finance
- President Toomas Hendrik Ilves, former President of Estonia
- Nandan Nilekani, Co-founder of Infosys and Founding Chairman of Unique Identification Authority of India
- Eric Jing, Executive Chairman, Ant Group
- Carolina Trivelli, former Minister of Development and Social Inclusion, Peru
- Mo Ibrahim, Chair of the Mo Ibrahim Foundation and Founder of Celtel
- Iqbal Quadir, Founder of the Legatum Center at the Massachusetts Institute of Technology (MIT) and of Grameenphone

It is of course noteworthy that the Bank offers some transparency on the governance, funding, and operation of the ID4D team. There are still shortcomings, of course, particularly in the organization of data on finances, the availability of key work products that would shed meaningful light on how decisions are being made, including many of the ID4D 'diagnostics' that have been completed, and in the connection of the ID4D Initiative to specific operations and Development Policy Financing initiatives. It is not easy, for instance, to search the operations database for keywords or to know where technical assistance is being provided by the ID4D team. However, even this amount of transparency far outstrips what is often available at the national level, where a democratic constituency is often legally entitled to information about the government.

What does this transparency tell us? Looking at this structure of the ID4D Initiative demonstrates the impact of key donors and funders in helping to shape the ID4D Agenda. It also shows how the multi-sectoral focus of the ID4D Initiative leads to systems that aim to address many different development concerns, from health and nutrition to innovation and investment in the private sector. Furthermore, the establishment of high-level advisory boards and internal governance structures demonstrates the significant buy-in that the ID4D agenda has found within the World Bank Group itself. This is an agenda that is attractive to many different stakeholders.

B. Manufacturing Consensus Around the Digital ID Model

Given its broad-based support, it is perhaps unsurprising that the ID4D Initiative has been extremely effective in influencing the way digital ID systems are talked about. It is fair to say that one prominent role of the World Bank and ID4D in the global debate around digital ID has been to 'manufacture consensus' around perspectives on what identification for development should look like.[294] This is reflected, first of all, in the extensive literature on the prospective benefits of identification for development, which selectively extrapolates from past experiences with different forms of identification, and builds in new assumptions about the effectiveness and efficiency of new technological tools. In this literature, the means of achieving the benefits becomes synonymous with the ends being sought, which creates a sense of inevitability.[295] As noted above, concrete and robust evidence of the purported benefits associated with digital ID systems is rarely provided, it is merely asserted that digital ID will lead to inclusion and development.

In many ID4D publications, once the benefits have been assumed, the second step is to acknowledge any potential harms as risks and barriers to the system itself.[296] These harms are never presented as reasons not to continue with a digital ID system altogether, merely as factors to inform design and implementation. Exclusion is always a potential risk, but one that can be mitigated.[297] The risks are normalized, and reframed as risks for the *success of the digital ID system.* In this way, a more principled debate about the worth of a system is avoided. This approach can also be seen in the Bank's research, which is process-oriented and technical and focuses on 'Barriers to Access,' 'Technical Standards,' and 'Cost Models,' and not on assessing impact, value for money, or return on investment of some of the so-called 'good' national ID systems. The Bank uses the rhetoric of science and rationality to neutralize the inherently political and social notion of identity[298] and mimics their favored approach where technical expertise is used as a means of constricting debate and ensuring that certain ideas become dominant in discourse.[299] There is also a lack of

[294] Reetika Khera describes a similar process of manufacturing elite consensus around Aadhaar in India. Other disciplines have discussed processes of norm building and substitution that mimic this process. Reetika Khera, *Dissent on Aadhaar: Big Data Meets Big Brother* (Himayatnagar, Hyderabad: Orient Blackswan Private Limited, 2019), https://www.amazon.co.uk/Dissent-Aadhaar-Data-Meets-Brother/dp/9352875427; Alexander E. Kentikelenis and Sarah Babb, "The Making of Neoliberal Globalization: Norm Substitution and the Politics of Clandestine Institutional Change," *American Journal of Sociology* 124, no. 6 (May 2019): 1720–62, https://doi.org/10.1086/702900.

[295] "Technological developments begin as means and become ends, as extension transference absorbs them into the culture. This transformation leads us to believe in technological inevitability, which in turn strengthens and validates the transformation." Carolyn R. Miller, "Technology as a Form of Consciousness: A Study of Contemporary Ethos," *Central States Speech Journal* 29, no. 4 (December 1, 1978): 230, https://doi.org/10.1080/10510977809367983.

[296] World Bank, "Barriers to the Inclusion of Women and Marginalized Groups in Nigeria's ID System: Findings and Solutions From an In-Depth Qualitative Study" (Washington, DC: World Bank Group, 2021). *See also* Dr Christoph Sperfeldt and Elif Sekercioglu, "Response to Call for Consultation," March 11, 2020.

[297] World Bank, "ID4D Practitioner's Guide: Version 1.0" (Washington, DC: World Bank Group, 2019), 55–60.

[298] Diane Stone, "The 'Knowledge Bank' and the Global Development Network," *Global Governance: A Review of Multilateralism and International Organizations* 9, no. 1 (August 3, 2003): 52, https://doi.org/10/gn2r2h. ("The epistemic community approach to policy networks highlights the role of scientific opinion and the weight of consensual knowledge of expert groups in shaping policy agendas, especially in circumstances of uncertainty. The dynamics of uncertainty, interpretation, and institutionalization at the international level drive policymakers toward the use of epistemic communities. Policy actors puzzle over the intractability of poverty and other development problems, which gives rise to demands for information in an attempt to understand and decode a com plex reality. The production of meaning is key to the institutionalization of policy ideas.")

[299] For instance, in evaluating the Global Development, Stone found "The GDN rhetoric of science, best practice, and knowledge sharing and the portrayal of GDN as a global partnership to produce public goods deemphasizes the ideological character of the network and privileges of technical economic knowledge. What is shared indeed disseminated and broadcast globally via the GDN are broadly similar sets of policy paradigms or development discourse. While access to the GDN is open, participation is restricted to those individuals and institutes that display mastery of techne and dominant discourses." Diane Stone, "The 'Knowledge Bank' and the Global Development Network," *Global Governance: A Review of Multilateralism and International Organizations* 9, no. 1 (August 3, 2003): 51, https://doi.org/10/gn2r2h.

publicly available cost-benefit analyses that can help show the underlying assumptions about the benefits of digital ID systems.

The World Bank has also 'manufactured consensus' around what can be considered models or 'best practices' for digital ID systems. The Aadhaar case study, as an example of foundational digital ID with specific technical characteristics, again looms large in that it was detached from granting any specific legal status and focused on economic or transactional identity. As a practical matter, staff from India's UIDAI have rotated through significant positions of influence at the international, regional, and national level. ID4D recently hosted an event with Pramod Varma, who is a former Chief Architect of Aadhaar and a volunteer at iSpirt, a thinktank collective which has played a critical role in promoting Aadhaar and the India Stack.[300] In addition to interpersonal relationships, there are many programmatic links between ID4D and UIDAI. The Bank has coordinated a significant number of knowledge exchanges between the UIDAI and other countries.[301] After 2016, the ID4D Initiative began sending World Bank country teams and government officials from Nigeria and Tanzania to India to learn from the model there.[302] The World Bank reportedly stated that "ID4D has sought the experience and lessons from UIDAI implementation to share learnings with interested countries."[303] Furthermore, the World Bank facilitated UIDAI visits with representatives from countries like Morocco, the Philippines, and Tunisia.[304] Staff from UIDAI have traveled to Myanmar, including two official tours by UIDAI officials in 2018 and 2019,[305] and Russia.[306]

The complex relationship between ID4D, UIDAI, and many of its funders is also intensified by the continued promotion of the Modular Open Source Identity Platform (MOSIP). The key advisors and personnel for the MOSIP project have been drawn from UIDAI. Sanjay Jain, for example, is Chairman of the Technology Board at MOSIP,[307] and was Chief Product Manager at UIDAI from 2010–12 and also volunteers at iSpirt.[308] The project has also been strongly influenced by Nilekani, and has even been referred to as "Aadhaar

[300] India Stack, iSpirt, https://ispirt.in/our-industry/indiastack/.
[301] Aman Sharma, "World Bank Approaches Unique Identification Authority of India to Share Its Experiences with Other Countries -," *The Economic Times,* September 9, 2016, https://economictimes.indiatimes.com/news/politics-and-nation/world-bank-approaches-unique-identification-authority-of-india-to-share-its-experiences-with-other-countries/articleshow/54204185.cms.
[302] Aman Sharma, "World Bank Approaches Unique Identification Authority of India to Share Its Experiences with Other Countries -," *The Economic Times*, September 9, 2016, https://economictimes.indiatimes.com/news/politics-and-nation/world-bank-approaches-unique-identification-authority-of-india-to-share-its-experiences-with-other-countries/articleshow/54204185.cms.
[303] Aman Sharma, "World Bank Approaches Unique Identification Authority of India to Share Its Experiences with Other Countries -," *The Economic Times,* September 9, 2016, https://economictimes.indiatimes.com/news/politics-and-nation/world-bank-approaches-unique-identification-authority-of-india-to-share-its-experiences-with-other-countries/articleshow/54204185.cms.
[304] Amrit Raj Jain Upasana, "Aadhaar Goes Global, Finds Takers in Russia and Africa," *Mint*, July 9, 2016, sec. politics, https://www.livemint.com/Politics/UEQ9o8Eo8RiaAaNNMyLbEK/Aadhaar-goes-global-finds-takers-in-Russia-and-Africa.html.
[305] Unique Identification Authority of India (UIDAI), Details of Foreign Tours of UIDAI Officials, (F.No. 1/8/2012-IR dt. 11.9.2012), https://uidai.gov.in/images/ForeignTours_UIDAIOfficials.pdf. "Covid-19 Spurs National Plans to Give Citizens Digital Identities," *The Economist,* December 7, 2020, 19, https://www.economist.com/international/2020/12/07/covid-19-spurs-national-plans-to-give-citizens-digital-identities. ("Before covid struck, encouraged by the launch of World Bank's ID4D ("Identification for Development") programme, which started in 2014, countries such as Morocco, the Philippines and Myanmar went to Delhi in search of help. But there is now a new sense of urgency.")
[306] Amrit Raj Jain Upasana, "Aadhaar Goes Global, Finds Takers in Russia and Africa," *Mint*, July 9, 2016, sec. politics, https://www.livemint.com/Politics/UEQ9o8Eo8RiaAaNNMyLbEK/Aadhaar-goes-global-finds-takers-in-Russia-and-Africa.html.
[307] MOSIP, People, https://mosip.io/people.php.
[308] iSpirt, which counts most of the key personnel involved in the Aadhaar sytem, has come under criticism following the questioning behavior of its CEO, and also for its operating model where private sector actors serve as volunteers at the thinktank which yields significant influence over government policymaking and investment. The CEO of iSpirt was found to have been harassing digital rights advocates under an anonymous twitter account. Rohin Dharmakumar. "Platform Ambitions: The Story of How ISpirt Lost Its True North." *The Ken,* September 21, 2017. https://the-ken.com/story/platform-ambitions-story-ispirt-lost-true-north/.

in a Box".[309] ID4D is a supporter of MOSIP, and ID4D and MOSIP share many of the same funders. A staff member from the World Bank also sits on MOSIP's International Advisory Group.[310]

In furthering its own ideas of 'good ID' and manufacturing consensus around these ideas, the Bank and ID4D have been described by many of our interlocutors as reluctant to acknowledge criticism and evidence of harm. There has been little evidence that the approach has been altered to address some of these critical concerns. An early example of this was the controversy around the 2016 World Development Report, entitled *Digital Dividends*, that claimed that the Aadhaar system had generated US$11 billion per year in potential savings. Several economists, including Jean Drèze and Reetika Khera, revealed that this figure was based on faulty assumptions and likely a severe overestimate.[311] When confronted with this correction, the Bank refused to withdraw the figure or make a public statement. Instead, they issued an electronic version of the report that claimed, in a footnote, that the figure was a projection that was "conditional on accountable institutions to complement the investments in digital technology."[312] Since then, rather than acknowledging its mistake, the Bank has instead become cautious about making statements about potential savings of Aadhaar. It has released statements such as:

> "Although it seems highly likely that Aadhaar has had a positive impact on government finances, we do not yet have enough information to precisely quantify the amount of fiscal savings or to separate Aadhaar-related savings from those generated by digitizing beneficiary lists, implementing DBT payment mechanisms, or potentially falsely excluding deserving beneficiaries."[313]

The Bank is aware of the critiques of the model of digital ID they are promoting. For instance, many of the concerns outlined above have been raised in dialogue with the World Bank and its partners in public consultation meetings, at closed door meetings, and through the sharing of research and advocacy directly with the Bank and publications by other experts. A large coalition of civil society organizations issued an open letter entitled *WhyID?* urging the Bank and other international organizations to reconsider their support for digital identification systems.[314] In 2020, several civil society organizations, including the Digital Welfare State and Human Rights Project, published a critical commentary on the revision of the *Principles on Identification for Sustainable Development*, after voicing many of these concerns in meetings with Bank representatives.[315] Specific letters of concern

[309] Aaron Martin, "Aadhaar in a Box? Legitimizing Digital Identity in Times of Crisis," *Surveillance & Society* 19, no. 1 (March 5, 2021): 104–8, https://doi.org/10.24908/ss.v19i1.14547; "Covid-19 Spurs National Plans to Give Citizens Digital Identities"; Privacy International, "ID Systems Analysed: MOSIP," Privacy International, accessed February 7, 2022, http://privacyinternational.org/case-study/4657/id-systems-analysed-mosip.

[310] MOSIP, International Advisory Group, https://mosip.io/people.php.

[311] Jean Drèze and Reetika Khera, "Aadhaar's $11-Bn Question: The Numbers Being Touted by Govt Have No Solid Basis," *The Economic Times,* February 8, 2018, https://economictimes.indiatimes.com/news/economy/policy/aadhaars-11-bn-question-the-numbers-being-touted-by-govt-have-no-solid-basis/articleshow/62830705.cms.

[312] World Bank Group, "World Development Report 2016: Digital Dividends Overview" (Washington, DC: World Bank, January 13, 2016), 197, https://doi.org/10.1596/978-1-4648-0671-1.

[313] World Bank, "Public Sector Savings and Revenue from Identification Systems: Opportunities and Constraint," 16–17.

[314] Civil society organizations, technologists, and experts, "#WhyID An Open Letter to the Leaders of International Development Banks, the United Nations, International Aid Organisations, Funding Agencies, and National Governments," accessed June 2, 2022, https://www.accessnow.org/whyid/.

[315] Center for Human Rights and Global Justice, "CSOs Call for a Full Integration of Human Rights in the Deployment of Digital Identification Systems," December 17, 2020, https://chrgj.org/2020/12/17/call-for-a-full-integration-of-human-rights-in-the-deployment-of-digital-identification-systems/.

have highlighted the human rights costs of digital ID systems in Afghanistan, Mexico, and Uganda. Our project hosted a session with the Project Coordinator of the ID4D Team to express our concerns at the Civil Society Policy forum in 2021. Moreover, there have been many examples of domestic advocacy campaigns and litigation, which, although not directed at the Bank, have special relevance for its work.[316] None of this, however, appears to have led to any significant change. The work that is being done with governments seems to demonstrate that there is a doubling down on the current model.

C. Working with Governments and Regional Actors to Shape System Development

Beyond manufacturing consensus among international actors when acting as a global 'thought leader,' the World Bank also uses its active involvement in projects to concretely shape digital identification systems. Since the creation of ID4D, the Bank has grown its portfolio of financing for digital identification projects. ID4D has been involved in country or regional engagements in at least 77 countries between 2017 and 2020 in various capacities. These engagements have been on several different levels: the process for engaging with governments on ID systems has often begun with a formal 'diagnostic' of the existing identification systems and the 'ID enabling environment assessment,' which provide assessments, categorizations, and specific recommendations.[317] This diagnostic process is often followed up by technical advice and advisory services, including analytics, advice on technical, legal, financial design, or knowledge exchanges with countries who are considered to be examples of good practice. In the past, these have typically included India, Peru, Thailand, and Estonia.

Eventually, ID4D's engagement might lead to a World Bank funded project to boost certain aspects of the identification ecosystem. The 2018 ID4D Annual Report set a goal of at least two follow-on WBG projects that are IDA or IBRD financed to support implementation. Morocco was one of the first, with a US$100 million project approved by the World Bank Board in March 2017. Morocco made liberal use of the existing models for identification and was the first country to pilot MOSIP, engaging in knowledge exchanges to learn about Aadhaar and the India Stack. This was quickly followed by the West Africa Unique Identification for Regional Integration and Inclusion Program, approved by the Board in June 2018, and another digital ID project in Djibouti, which was approved in April 2018 but was ultimately removed following a restructuring of the project. The following year, the Annual Report stated that the WBG Board approved projects for Afghanistan,[318]

[316] Zekeria Ould Ahmed Salem and Nora Bardelli, "'Hands off My Citizenship!': Biometrics and Its Politics in Mauritania," in *Identification and Citizenship in Africa* (Taylor and Francis, 2021), 203–20, https://doi.org/10.4324/9781003053293-15; | Ayang Macdonald, "Track Record of Biometric Ghana SIM Re-Registration Provider Comes under Scrutiny | Biometric Update," January 10, 2022, https://www.biometricupdate.com/202201/track-record-of-biometric-ghana-sim-re-registration-provider-comes-under-scrutiny; Ayang Macdonald, "Nigeria's Move to Link Digital Identity Numbers to SIM Cards Sparks Lawsuit"; Balford Henry, "Coalition Cautious about NIDS Becoming Mandatory," *Jamaica Observer,* April 6, 2021, https://www.jamaicaobserver.com/latestnews/Coalition_cautious_about_NIDS_becoming_mandatory?profile=1228; Frank Hersey, "Pakistan Gymnastics Team Fights for ID in Case Which Could Bring It to 3 Million," November 8, 2021, https://www.biometricupdate.com/202111/pakistan-gymnastics-team-fights-for-id-in-case-which-could-bring-it-to-3-million.

[317] *See* https://id4d.worldbank.org/country-action/id4d-diagnostics and https://id4d.worldbank.org/legal-assessment.

[318] This was cited in the ID4D Annual report, but was not for the e-Tazkira project. Communication with World Bank ID4D Team, *see* Annex.

Somalia, Tonga,[319] and Tunisia.[320] By 2019, the Bank's funding involved at least 27 ID4D related projects.[321]

For the purposes of this primer, we have looked thoroughly at four recent and ongoing projects which are being financed by the World Bank in different parts of the world to show the types of engagement and systems being advised by ID4D. These projects are Nigeria, Mexico, the Philippines, and the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Program. By focusing on these current examples of concrete digital ID projects where ID4D is directly involved, we will demonstrate its role in shaping projects and the type of systems and choices preferred.

Known ID4D Country Engagements on ID and civil registration, 2017–21

Afghanistan, Algeria, Angola, Bangladesh, Benin, Bolivia, Botswana, Brazil, Burkina Faso, Cameroon, Central African Republic, Chad, Colombia, Côte d'Ivoire, Democratic Republic of Congo, Djibouti, Dominica, Dominican Republic, Egypt, El Salvador, Eswatini, Ethiopia, Federated States of Micronesia, Gabon, Gambia, Ghana, Grenada, Guinea, Honduras, Indonesia, Kenya, Kiribati, Lao PDR, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Mali, Marshall Islands, Mauritania, Mexico, Morocco, Mozambique, Myanmar, Namibia, Nepal, Niger, Nigeria, Pakistan, Papua New Guinea, Peru, Philippines, Republic of Congo, Rwanda, Samoa, Sao Tomé and Príncipe, Senegal, Sierra Leone, Sint Maarten, Solomon Islands, Somalia, St. Lucia, St. Vincent & the Grenadines, Sudan, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Tunisia, Uganda, Uzbekistan, Vanuatu, Vietnam, Zambia

Source: ID4D Annual Reports, 2017–2021

[319] This project included both civil registration and ID. Communication with World Bank ID4D Team, *see* Annex.

[320] The project in Tunisia is supporting legal frameworks and sectoral service delivery systems and ID / registers (for social protection, health) and their links with civil registration and the unique population identifier (IUC); however, these foundational systems themselves are financed by the African Development Bank. Communication with World Bank ID4D Team, *see* Annex.

[321] "In the past three years, the ID4D Initiative has provided advisory support to over 40 countries, of which 27 will also be supported by financing for implementation. In 2019, country demand continued to grow, with new engagements in Angola, Benin, Burkina Faso, Brazil, Ethiopia, Honduras, Lebanon, Madagascar, Mexico, Mozambique, Niger, Rwanda, Togo, and Vietnam. We have also seen ongoing dialogue and technical support turn into actual implementation, with a growing portfolio of investments in digital ID and civil registration system of more than US$1.2 billion." World Bank, "Identification for Development (ID4D) Annual Report 2019" (Washington, DC: World Bank Group, 2020), 27, http://documents.worldbank.org/curated/en/566431581578116247/pdf/Identification-for-Development-ID4D-2019-Annual-Report.pdf.

	Nigeria	Mexico	Philippines	WURI
Key Projects and Financing	Nigeria Identification for Development Project (2020)	Mexico National Digital Identity System to Facilitate Inclusion Project (2020)	Technical Assistance, late 2017; Beneficiary FIRST Social Protection Project (2020); Promoting Competitiveness and Enhancing Resilience to Natural Disasters Sub-Program 3 Development Policy Loan (2021)	West Africa Unique Identification for Regional Integration and Inclusion Program, Phase 1 and Phase 2 (Multi-Phase Programmatic Approach 2019–2020)
Amount	US$115 million IDA Credit (Co-financers EIB and AFD)	US$225 million (IPF and non-earmarked COVID-19 Development Policy Financing)	Part of US$600 million (Non-earmarked COVID-19 Development Policy Financing)	US$395.1 million (IDA Grants and Credits through Special Drawing Rights)

These four projects represent very different countries with very different histories around identification. Nigeria, for example, has had legislation in place to establish a National ID system since 2007, but has struggled to achieve coverage and has a history of several failed attempts. Birth registration in the country remains very low, and the identification gap is significant. Mexico, on the other hand, has relatively high coverage of its existing, non-biometric identification system, but cannot provide accurate digital de-duplication from its current set up. The Philippines has tried several times to introduce a new system and was finally able to pass an implementing law in 2018. Meanwhile, WURI countries are all at different stages of development and will each be adopting different technical solutions to provide a core, regionally interoperable, unique identification ecosystem.

Despite their differences, we see several important similarities among these projects, demonstrating how a specific vision and approach is being furthered by ID4D across different country contexts. The Bank is also able to leverage its other roles, as a thought leader and platform convener when funding concrete projects, particularly by leveraging learning across these 'new generation' digital ID projects. In the Mexico Project appraisal document, the World Bank noted that it could "add substantial value

[through] drawing on its global knowledge, technical expertise and lessons learned in the implementation of similar systems across the world."[322] These four projects show how it is putting that expertise to work.

We have focused on 5 characteristics that each of these World Bank-funded projects share and that reflect the core aspects of the new consensus highlighted in section 2. This is not to take away from the significant differences. These four projects: i) use similar language found in other ID4D reports to justify the investment made, ii) target social protection systems and their poor beneficiaries as early test cases, iii) use the ID4D diagnostic tool to create a sense of inevitability for the particular ID system proposed, iv) emphasize the same key features of digital ID systems that the World Bank promotes more generally, including de-linking the digital ID from legal status and emphasizing a form of what we refer to as transactional or economic identity, and v) portrays human rights risks as manageable. These six commonalities are important because they relate to many of the issues we have identified in sections 1 and 2, in that the embrace of this new model heightens the risk of human rights violations.

1. Justifying the ID4D Agenda

The Strategic Roadmap for Developing Digital Identification in Nigeria reiterates the key points of the ID4D agenda:

> "Identity is today a public good, and a requisite for modern development: The ability to prove one's identity is critical for individuals to participate in economic, social and political life. Equipped with a verifiable, digital form of identity, individuals can prove and assert their identity in an instantaneous, paperless manner, anytime or anywhere in the country. They can thus become an integral part of the national digital economy. This "connectedness" can empower people, to access benefits and services, claim entitlements, and conduct a range of activities. When each person has a proof of identity, the government can be better equipped to do fiscal management, revenue generation, and accountability and transparency. The use of ID in the government's social expenditure can help remove fake and duplicate entries, and enable direct delivery of benefits and services to individuals at their doorstep."[323]

This language echoes many of the benefits put forward by identification for development proponents in the formation of the ID4D agenda. Similar arguments have

[322] Mexico PAD lists the following projects as sources of learning: Morocco Identity and Targeting for Social Protection Project; West Africa Unique Identification for Regional Integration and Inclusion Project; Nigeria Digital Identification for Development Project, and Philippines: Padayon - ID4D Technical Assistance Phase 2. World Bank, "Project Appraisal Document: Mexico National Digital Identity System to Facilitate Inclusion (P172647)," 23.

[323] National Identity Management Commission, "A Strategic Roadmap for Developing Digital Identification in Nigeria," June 2017, 9, https://nimc.gov.ng/docs/reports/strategicRoadmapDigitalID_Nigeria_May2018.pdf.

been made in the Philippines[324] and Mexico.[325]

Further echoing these arguments in favor of digital ID—and of the Aadhaar experience—all four of these projects make significant assumptions about the savings that will be generated by these systems. The Mexico project documentation states that the 10-year Net Present Value is estimated at US$357.6 million with an Internal Rate of Return of 38.5%.[326] There is no publicly available cost-benefit analysis. Meanwhile, the Nigerian project is claimed to represent savings of US$340 million in sealing up leakages.[327] But the evidence base for such savings remains underdeveloped.[328] No figures have been assessed for WURI,[329] but project documents cite examples from India, Pakistan, Thailand, and Nigeria that are focused on the same two areas of savings generation: culling beneficiaries from social protection programs and eliminating ghost workers from public payrolls.[330]

2. Targeting the Poor

Notably, all four of these projects also target social protection systems as one of the early use cases. This is a common approach adopted by governments. For instance, in the Philippines, the Bank notes that "SP beneficiary registration and financial inclusion has been designated the first priority for the PhilSys with the intention to register 5 million heads of low income households by the end of 2020, with priority to women."[331] Following this, one of the priority use cases designated for 2021 was with the Department of Social

[324] Foundation for Media Alternatives, "The National ID Debate: Is the Philippines Ready?," 7.
[325] World Bank, "Project Appraisal Document: Mexico National Digital Identity System to Facilitate Inclusion (P172647)," 11. ("The development of an inclusive and reliable ID system will, inter alia, facilitate access to services and enhance efficiency in benefit and service provision. An enhanced ID system is not only a goal in and of itself to fulfill the human right to an identity. It facilitates access to financial services, economic opportunities, social services, and social protection, and thus directly benefits the poor and vulnerable. A solid and trusted national ID system will also have gender- transformative effects through enhanced opportunities and agency for women. In the social protection space, the improved ID system will help expand access to social programs, and will enable cost-effective, secure and convenient digital payments to beneficiaries currently receiving cash payments. Enhanced ID will support financial inclusion through increased availability of the necessary documentation to open a bank account and by facilitating providers' Know-Your-Customer (KYC) requirements. It will reduce identity theft, fraud and corruption through enhanced verification and authentication protocols. In the health sector, a sophisticated civil registration and ID system will increase accuracy of vital statistics, which will help to better monitor health targets and track provision of care, potentially including vaccinations among others.").
[326] World Bank, "Project Appraisal Document: Mexico National Digital Identity System to Facilitate Inclusion (P172647)," December 18, 2020, para. 58, https://documents1.worldbank.org/curated/en/657131611543704157/pdf/Mexico-National-Digital-Identity-System-to-Facilitate-Inclusion-Project.pdf.
[327] Ukpe Philip, "World Bank Says Nigeria Can Block $340m Leakages Through Digital Reforms," *The Whistler Nigeria,* September 11, 2020, https://thewhistler.ng/world-bank-says-nigeria-can-block-340m-leakages-through-digital-reforms/amp/.
[328] "The full extent of these benefits, however, remains difficult to quantify. As such, this paper has highlighted the need for more data and research to develop a reliable model of expected return on investment for identification systems. We encourage country practitioners, donors, and researchers engaged in the development and analysis of such systems to give more consideration to the measurement of ID-related fiscal savings and revenue, and to make these figures public whenever possible. Where feasible, studies to estimate the causal impact of identification systems on government finances through controlled or natural experiments would also help overcome many of the difficulties in attributing changes in expenditure and revenue to various features of identification systems" World Bank, "Public Sector Savings and Revenue from Identification Systems: Opportunities and Constraint," 52.
[329] "The combined benefits to individuals, to the overall economy and to the fiscal situation suggest a high rate of return; however, those benefits are inherently difficult to measure. According to a 2019 McKinsey study, countries implementing digital identification systems can generate three to 13 percent of GDP by 2030, depending on the share of the economy such issued credentials can address. A *Cost-Benefit Analysis of National Identity Management System Development in Zambia,* the only such study found for a developing country and commissioned by the World Bank as part of its "Support Developing Identification and Registration Systems in Africa" efforts, estimated an internal rate of return ranged from 38 percent to more than 500 percent in the four scenarios presented." World Bank, "Project Appraisal for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Phase 2," 11.
[330] World Bank, "Project Appraisal for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Phase 2," April 10, 2020, 51–52, http://documents1.worldbank.org/curated/en/261151588384951057/pdf/Benin-Burkina-Faso-Togo-and-Niger-Second-Phase-of-West-Africa-Unique-Identification-for-Regional-Integration-and-Inclusion-WURI-Project.pdf.
[331] World Bank, "Project Appraisal Document: Philippines Beneficiary FIRST Social Protection Project (P174066)," September 15, 2020, 13, https://documents1.worldbank.org/curated/en/440311602193454966/pdf/Philippines-Beneficiary-FIRST-Social-Protection-Project.pdf.

Welfare and Development, which was also used as an early pilot project for PhilSys enrollment. This is in some ways tied to the inclusive promise of identification systems. However, combined with the repeated claims about savings being derived significantly from eliminating beneficiaries from social protection systems, it is clear that targeting these social programs also reflects the promise of reduced leakage, fraud and corruption, which are allegedly ubiquitous. What is worrying is that these pilot projects for ID registration tend to be clustered around welfare programs—again reflecting harmful policy trends of experimenting with new approaches for dealing with the poor.[332]

3. Diagnosis as Prognosis

Across these four examples, the same 'diagnostic' process has been used as a tool to reinforce policy recommendations that ID4D believed would lead to 'good ID.' The diagnostic tool itself looks at the ID ecosystem in terms of inclusiveness or accessibility, robustness, and integration.[333] A key assumption of the diagnostic is that greater integration is necessarily beneficial. In guidance annexed to the Diagnostic for Mexico, this is made explicit:

> "Most private and public transactions can be done with single ID at national level; same advanced authentication standards used across programs. Vast majority of government MIS can be linked by unique ID or through other mechanism. Regulated access to data that ensures data protection and privacy is effectively enforced and monitored."[334]

Few countries can reach this standard. In a review of the publicly available diagnostics, there is usually always a recommendation to improve integration of digital ID systems and move towards more multi-purpose systems. For instance, the Nigeria diagnostic suggested that "[i]ntegration of identity systems is necessary... harmonization remains unrealized. In fact, the number of parallel identity systems has grown. A prerequisite for integration is a critical volume of entries in the national identity registry, and an online identity verification facility."[335] While the Mexico diagnostic found that "Mexico's large number of social assistance programs has resulted in some degree of duplication, overlaps (of programs and beneficiaries), and fragmentation... this complexity is heightened by the lack of a single/ universal personal (beneficiary) identification that help policy makers avoid overlaps."[336] In Guinea, one of the first two WURI countries, reports reiterated this by saying "[s]uccessive governments have tried to address service-delivery issues by designing ad hoc functional IDs. This approach, especially once coupled with fragmentation in ID systems management, has resulted in the creation of parallel ID systems, duplication and waste of scarce resources. The frequent and diverse need for IDs—for access to social welfare benefits, banking, registering to vote and more—highlight the need for a robust

[332] Shoshana Amielle Magnet, "Criminalizing Poverty: Adding Biometrics to Welfare," in *When Biometrics Fail* (Duke University Press, 2011), 23.
[333] Guidelines for the diagnostic tool are available here; https://id4d.worldbank.org/Diagnostic-Guidelines.
[334] World Bank, "Systematic Country Diagnostic: Mexico," 2019, 44, https://documents1.worldbank.org/curated/es/588351544812277321/pdf/Mexico-Systematic-Country-Diagnostic.pdf.
[335] World Bank, "ID4D Diagnostic: Nigeria," 2016, x, https://documents1.worldbank.org/curated/en/136541489666581589/pdf/113567-REPL-Nigeria-ID4D-Diagnostics-Web.pdf.
[336] World Bank, "Systematic Country Diagnostic: Mexico," 32.

fID system with authentication processes."[337]

Using the diagnostic tool in this way creates a sense of inevitability that all countries will eventually need to move towards ever greater integration, interoperability, and multi-purpose systems. Their diagnostic leaves little room for the possibility that using so-called fragmented, functional IDs rather than a single foundational system, might be a better option. This is certainly the approach adopted in many Global North countries, which have consistently declined to move towards what the Bank would consider a more integrated model where digital interoperability is built into the system design through the use of biometrics.[338]

4. Different Countries, Similar ID System

Perhaps unsurprisingly given the similarities across diagnostics, the ultimate design choices made in these four different projects and contexts are similar to one another and to the Aadhaar system. For instance, in all of these projects there is an emphasis on establishing uniqueness through a centralized database. In Mexico, the existing civil registration system and unique identifier are to be linked with a new collection of biometric and biographic information that will use 'modern de-duplication' to consolidate old and new data. The key aim of this is to establish uniqueness, since Mexico already has a relatively robust civil registration system. All four projects also rely on biometrics for registration and de-duplication of the centralized database.[339] Despite the above-described problems with biometric technologies, including their intractability and potential for scope creep, biometrics are included in each project.[340] This persists despite assertions that projects will use only a 'minimal dataset.'

The Bank has also advised governments in all four projects to aim to provide all residents of the country with a transactional form of identification that will allow both public and private actors to use the system as a platform for delivering services. In some projects, the Bank also prefers de-linking the digital identification system from legal status. In the WURI project, experiences in Phase I relating to voter registration have led the World Bank to note that "[a]s the identification agenda is closely intertwined with questions of inclusion, recognition, and access, it is inherently political... these aspects become particularly apparent in (pre-)electoral periods, in which the attribution of (national) identity credentials becomes directly associated with the right vote or the right to register for voter rolls."[341] Its response in this case was to move further away from systems that

[337] World Bank, "Project Appraisal Document: West Africa Unique Identification for Regional Integration and Inclusion (WURI), Using the Multiphase Programmatic Approach (P161329)," 66.
[338] Jaap van der Straaten, "Legal Identity, Development and Democracy in Northern Europe," SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, May 16, 2022), https://papers.ssrn.com/abstract=4110873; Clare Sullivan, "Digital Identity, Privacy and the Right to Identity in the United States of America," *Computer Law & Security Review* 29, no. 4 (August 1, 2013): 348–58, https://doi.org/10.1016/j.clsr.2013.05.011.
[339] On the central database: "The database is critical to ensure uniqueness as it will enable the linkage of biometric and biographic data to the CURP using modern deduplication15 methods. The database will include biographic and biometric data already stored by RENAPO, as well as new data captured by civil registry offices across the country during enrollment, and data from public sector partner entities authorized to capture information at different registration points. The database will also incorporate legacy data from other federal agencies in a harmonized way and will thus enable RENAPO to ensure the uniqueness of the records." World Bank, "Project Appraisal Document: Mexico National Digital Identity System to Facilitate Inclusion (P172647)," 9.
[340] "First, minimal, limited data will be collected (biometrics, name, date of birth, gender, etc.), without any socioeconomic or demographic data." World Bank, "Project Appraisal for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Phase 2," 97.
[341] World Bank, "IDA Project Appraisal Document for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Project," 58, accessed September 8, 2020, http://documents1.worldbank.org/curated/en/771571528428669934/pdf/REGIONAL-INTEGRATION-CAS-AFRICArev-05152018.pdf.

would directly grant rights: "Foundational ID (fID) systems provide government-recognized ID credentials upon which both the public and private sector can subsequently rely for transactions and delivery. Typically, fID systems sync with civil registration (CR) systems and interoperate with sectoral systems (e.g., SPJ, health, education, financial services, population, travel), without connoting legal status."[342] And: "fID systems serve the sole purpose of uniquely identifying a person (typically through associating a person's minimal biographic data with their biometrics). They neither accord nor recognize a person's rights (e.g., nationality, legal status). The fID system is intended to provide assurance of a person's unique identity ("I am who I say I am"), and nothing more."[343] This is clearly an awkward fit in many of the WURI countries, with the Bank acknowledging that "the ability to identify oneself is not easily understood apart from the question of 'legal identity,' and in which the Civil Registry (or *état civil*), which records vital events of the population (typically births, deaths, marriages), plays a principal part in both creating and attributing legal identity, and is administratively burdensome."[344] Meanwhile, the civil registries of these countries are in dire need of updating,[345] but modernizing and updating the civil registries is emphatically not part of the WURI project.[346]

It is also unclear in several of these projects how these new foundational systems will interplay with existing civil registration systems. Plans for Phase 2 of the WURI project intend to "support links both to the civil registration (CR) system, and to human development (HD) and financial services, thus enabling sustainability," yet at the appraisal stage "a means for keeping data up-to-date with information on births and deaths has not been developed. Furthermore, the system is not connected to services that would attract users."[347] The project document proposes holding an open competition to determine ways to link the foundational ID and the civil registration system, which suggests that the goal remains aspirational.

5. Manageable Human Rights Risks

In all the documents, the Bank is usually quite frank about human rights risks. For instance, in the WURI Project Phase 2, the Bank recognized that:

> "The proposed project activities entail some significant risks and impacts, which fall largely into two categories. First, there is significant potential that the mass registration of the population will not reach certain vulnerable groups thus exacerbating their social exclusion and marginality. Second, data collected as part of the registration could be used for discriminatory purposes, or give rise to data

[342] World Bank, "IDA Project Appraisal Document for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Project," 21, accessed September 8, 2020, http://documents1.worldbank.org/curated/en/771571528428669934/pdf/REGIONAL-INTEGRATION-CAS-AFRICArev-05152018.pdf.
[343] World Bank, 22.
[344] World Bank, "IDA Project Appraisal Document for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Project," 24.
[345] Michael Offermann, Extract from: Report on Citizenship Law: Togo, GLOBALCIT, Robert Schumann Institute of Advanced Studies, EUI, (Forthcoming, 2022): 10–11.
[346] "As the project will not finance the digitization of stock, the strategy for digitization will include alternate sources of financing for relevant aspects." World Bank, "Project Appraisal for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Phase 2," 103.
[347] World Bank, "Project Appraisal for the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Phase 2," April 10, 2020, 103, http://documents1.worldbank.org/curated/en/261151588384951057/pdf/Benin-Burkina-Faso-Togo-and-Niger-Second-Phase-of-West-Africa-Unique-Identification-for-Regional-Integration-and-Inclusion-WURI-Project.pdf.

theft and other privacy violations. Social Assessments will be prepared in each country to assess these risks and propose mitigation measures. Substantial and continuous measures will need to be put in place during project preparation and implementation."[348]

Regardless of their acknowledgement, these risks are always portrayed as manageable and able to be addressed through implementation or technical fixes.[349] Where legal reforms have been conditioned as part of the financing agreement, as in Nigeria, these amendments have yet to be enacted.[350] For instance, ID4D has done additional research in countries like Nigeria, and social risk assessment tools are being piloted in the WURI countries. But these have focused almost exclusively on barriers to access, and they consistently rest on the premise that technological fixes—like mobile phones and remote services—can address the identified risks of exclusion.[351]

This is especially worrying because human rights activists in Nigeria, Mexico, the Philippines, and WURI countries have raised the alarm about the harmful effects of such systems.[352] Despite the many similarities between the systems which are being adopted across these countries, and the similarities with systems in other parts of the world from which harmful impacts have already resulted, it does not appear that existing World Bank safeguards are sufficiently triggered by the significant social risks associated with these projects. This represents a failure to recognize the decade of evidence from India or other emerging instances of exclusion.

From a broader overview of its engagements, it is also unclear what exact considerations go into the World Bank's decisions about whether it will invest in a digital identification system. It appears that the Bank actively decided not to invest in Myanmar, where diagnostic and project information sheets were prepared but the project was never funded.[353] In other situations, such as Afghanistan, the Bank invested significantly in

[348] World Bank, "Project Appraisal Document: West Africa Unique Identification for Regional Integration and Inclusion (WURI) Program: Phase 2 (P169594)," April 10, 2020, 4, https://documents1.worldbank.org/curated/en/261151588384951057/pdf/Benin-Burkina-Faso-Togo-and-Niger-Second-Phase-of-West-Africa-Unique-Identification-for-Regional-Integration-and-Inclusion-WURI-Project.pdf.

[349] Sperfeldt, "Legal Identity in the Sustainable Development Agenda," 228.

[350] Babatunde Okunoye, "Nigeria Case Study Conducted as Part of a Ten- Country Exploration of Socio-Digital ID Systems in Parts of Africa," 2021.

[351] World Bank Group (ID4D), "Barriers to the Inclusion of Women and Marginalized Groups in Nigeria's ID System: Findings and Solutions From an In-Depth Qualitative Study"; Republique de Guinée, "Rapport Final: Evaluation Sociale Du Programme d'Identification Unique Pour L'integration Regionale et l'inclusion En Afrique de l'ouest - Guinee," June 2020, https://guineenews.org/wp-content/uploads/2021/11/Rapport-Final-Evaluation-sociale-WURI-Guinee1.pdf.

[352] Leo Schwartz, "The Dystopian Danger of a Mandatory Biometric Database in Mexico," *Rest of World,* November 3, 2021, https://restofworld.org/2021/the-dystopian-danger-of-a-mandatory-biometric-database-in-mexico/; Ellie Aben, "Philippines' New National ID System Divides Opinions"; Foundation for Media Alternatives, "The National ID Debate: Is the Philippines Ready?"; Privacy International, "PI Joins Civil Society in Concerns over Mexico's World Bank Funded Digital ID Scheme," *Privacy International* (blog), September 28, 2021, http://privacyinternational.org/advocacy/4623/pi-joins-civil-society-concerns-over-mexicos-world-bank-funded-digital-id-scheme; Adeboye Adegoke, "Nigeria's Digital ID Scheme May Benefit Those 'with Access'— but What about Everyone Else? · Global Voices," *Global Voices* (blog), February 6, 2020, https://globalvoices.org/2020/02/06/nigerias-digital-id-scheme-may-benefit-those-with-access-but-what-about-everyone-else/; Ayang Macdonald, "Nigeria's Move to Link Digital Identity Numbers to SIM Cards Sparks Lawsuit"; Communications Team, "Africa: Encroaching on Digital Rights Under the Pretext of Containing COVID-19?," *Paradigm Initiative* (blog), April 6, 2020, http://paradigmhq.org/africa-encroaching-on-digital-rights-under-the-pretext-of-containing-covid-19/.

[353] Natalie Brinham et al., "Locked in and Locked Out: The Impact of Digital Identity Systems on Rohingya Population" (Institutes on Statelessness and Inclusion, November 2020); World Bank, "Myanmar: Investment Analysis and Implementation Options for Proposed Digital Government Project," June 2018, https://documents1.worldbank.org/curated/fr/528481530162210035/pdf/Myanmar-Investment-Analysis-and-Implementation-Options-for-Proposed-Digital-Government-Project.pdf; World Bank, "Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS): MM: Digital Myanmar Project (P167978)," September 27, 2018, https://documents1.worldbank.org/curated/pt/393851542862936421/pdf/Concept-Project-Information-Document-Integrated-Safeguards-Data-Sheet-MM-Digital-Myanmar-Project-P167978.pdf.

several different biometric databases, including a Payments Automation and Integration of Salaries system, which included the biometrics of pensioners and civil servants.[354] The Bank also vocally supported the foundational e-Tazkira system in Afghanistan,[355] despite early concerns raised about the unstable situation in the country.[356] In Togo, there have been growing concerns about government surveillance, particularly in the wake of the Pegasus scandal; yet there is little acknowledgment of the significant security and exclusion risks that could result from a national digital ID system within such a political environment.[357] The lack of transparency about these decision-making processes, or about how frameworks such as the *Principles* are being used by the Bank in its engagements, only exacerbates concerns for civil society and vulnerable communities seeking positive change.

D. Zooming Out on the Bank and its Network

Beyond ID4D and its position within the World Bank Group, there exists a wide range of other actors who have been instrumental in building the current landscape for digital identification systems. A detailed mapping of the exact role and influence of the various actors within this network would require further study. What we can state, based on our research, is that ID4D has actively created networks and played a convening and facilitating role in the global discourse and practice around digital ID. The World Bank's 2021 Annual Report for trust funds described ID4D's influence as follows:

> "Making global progress toward realizing the transformational potential of digital identification in every country requires harmonized action by a wide range of stakeholders. ID4D has helped unify and drive the identification agenda through several important initiatives, including the Principles on Identification for Sustainable Development. These were developed with a broad group of development partners, UN agencies, and the private sector, and then launched in 2017 to create a shared vision for digital ID systems. To date, 25 organizations have endorsed the Principles, which provide a powerful guiding framework and advocacy tool for countries and development partners to put in place 'good ID.'"[358]

The *Principles on Identification for Sustainable Development* are indeed an indicator of the role that the Bank plays in this global ecosystem. The *Principles*, first developed in 2017, were initially convened by the World Bank ID4D Initiative and their key partner, the Center for Global Development. Together, these organizations act as the anchor for these principles, with other organizations joining as endorsers and continuing to have equal ownership over the *Principles*. The list of signatories represents the breadth of the digital

[354] World Bank, "Project Appraisal Document: Payments Automation and Integration of Salaries in Afghanistan (PAISA) (P168266)," April 2, 2019, https://documents1.worldbank.org/curated/en/903431556503441520/text/Afghanistan-Payments-Automation-and-Integration-of-Salaries-in-Afghanistan-PAISA-Project.txt.
[355] Jim Nash, "Digital ID a Surprising, Qualified Success for Women in Afghanistan," October 7, 2020, https://www.biometricupdate.com/202010/digital-id-a-surprising-qualified-success-for-women-in-afghanistan.
[356] Caitlin Thompson, "A Cautionary Tale on Mass Data Collection, from Afghanistan," Coda Story (blog), April 12, 2022, https://www.codastory.com/newsletters/biometrics-afghanistan-taliban/; Quito Tsui, "Resisting Patriarchal Logics of Digital ID Systems," *Bot Populi* (blog), accessed May 23, 2022, https://botpopuli.net/?post_type=post&p=6024.
[357] Afi Edoh, "Togo: Fumbling With a Digital ID While Actively Surveilling Citizens," April 21, 2022, https://cipesa.org/2022/04/togo-fumbling-with-a-digital-id-while-actively-surveilling-citizens/.
[358] World Bank, "2020 Trust Fund Annual Report: Moving the Needle for Greater Impact" (Washington, DC: World Bank Group, 2020), 118, https://documents1.worldbank.org/curated/en/479871602859721372/pdf/2020-Trust-Fund-Annual-Report-Moving-the-Needle-for-Greater-Impact.pdf.

ID network. It includes multilateral development banks who have been instrumental in pushing for legal identity, and many of the UN agencies who have similarly been working on issues of legal identity. It also includes the key funders of the ID4D Initiative itself, including BMGF, Omidyar Network, and the UK government. Key sectors with an interest in profiting from the use of identification systems are also represented—including mobile telecom companies and identification technology companies. It also includes civil society signatories including Plan International, for example.

Funding for the ID4D Initiative itself is also evidence of the broader ecosystem in which the Bank functions, as well as its own unique role. The most important funder of ID4D's work, the BMGF, have made digital ID a centerpiece of their work on financial inclusion through their Financial Services for the Poor initiative. The BMGF was a key funder of groups such as the Consultative Group to Assist the Poor and the Better than Cash Alliance who have supported the financialization and demonetization process in places like India.[359] The BMGF is not only the first and largest funder of the ID4D Initiative, but they have also maintained an active role in funding several other key initiatives within the ecosystem, including G2Px, MOSIP, the Digital Impact Alliance, ID4Africa, and the GSMA Foundation.[360] Moreover, the BMGF is a prolific funder of research on digital ID.[361] As a funder, the BMGF is a member of the MDTF Steering Committee and is formally allowed to state non-binding preferences on the activities of the ID4D team. Not only have the BMGF invested, but they have actively promoted the work of ID4D and encouraged other donors to get involved through the G7 Call to Action.[362] The BMGF is an incredibly powerful and influential actor within the digital ID ecosystem.

Omidyar Network, a funder with a previous interest in fintech[363] and numerous other policy areas related to digital ID, has also been a leading player in this ecosystem. Like the BMGF, Omidyar Network was an early funder of ID4D, though on a much smaller scale with an initial investment of US$2 million in 2017, and an additional US$2 million in 2020. As they previously had an office in India, they took an early interest in understanding

[359] An example is the Financial Inclusion Global Initiative (FIGI), which is funded in part by BMGF, and is a partnership by the World Bank Group (WBG), the Committee on Payments and Market Infrastructure (CPMI), and the International Telecommunications Union (ITU), https://www.worldbank.org/en/topic/financialinclusion/brief/figi.

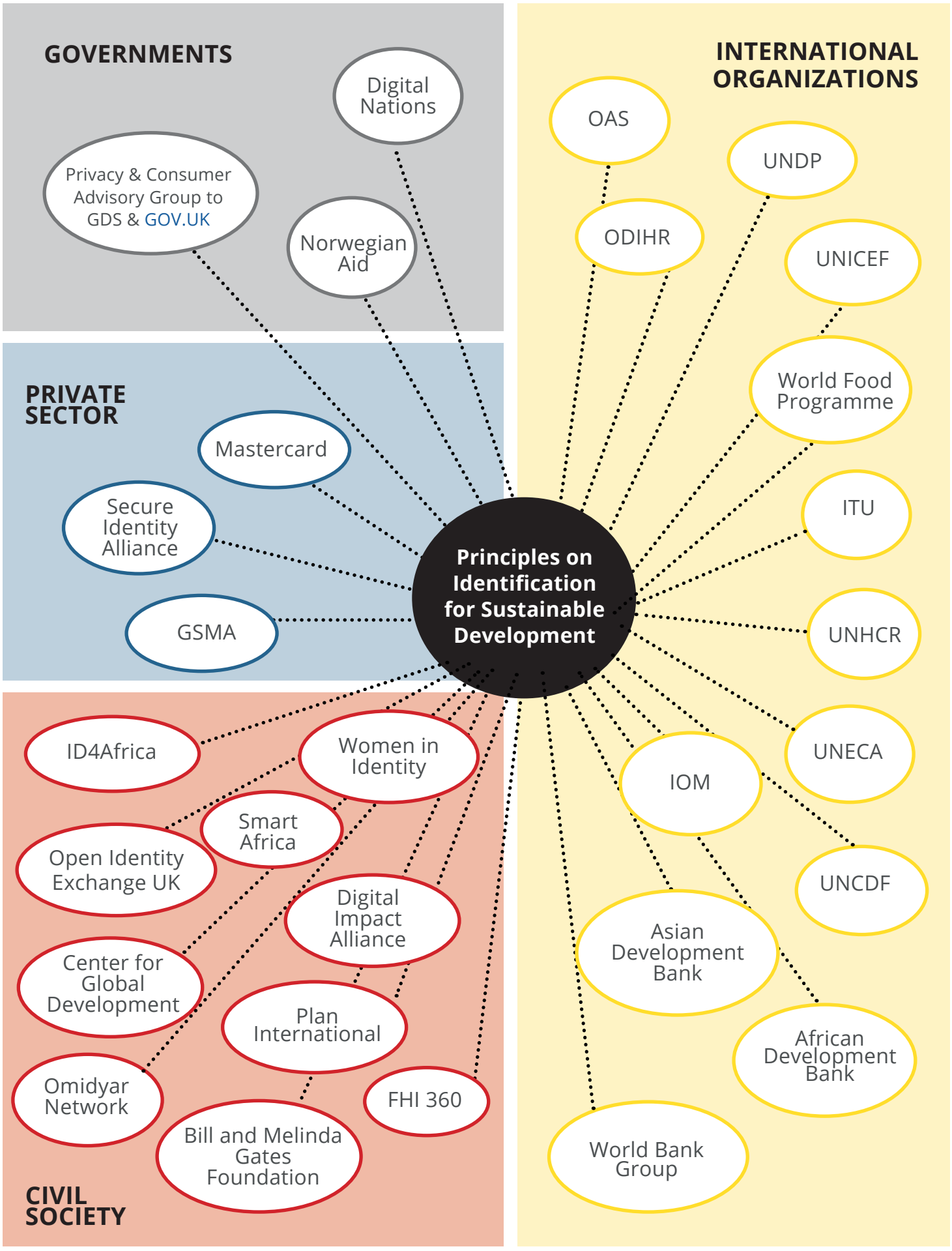
[360] "ID4Africa - Bill & Melinda Gates Foundation," accessed May 23, 2022, https://www.gatesfoundation.org/about/committed-grants/2019/11/inv003889; MOSIP, "MOSIP Discussions with Bill Gates and with Carnegie Mellon University," November 30, 2019, https://www.mosip.io/news-events/mosip-discussions-with-bill-gates-and-with-carnegie-mellon-university; The GSMA Foundation, "Donors," *About Us* (blog), accessed June 10, 2022, https://www.gsma.com/aboutus/foundation/donors; Mojaloop, "The Mojaloop Foundation Launches as a Charitable Nonprofit Organization to Advance the Financial Inclusion Mission of Mojaloop," Mojaloop, May 6, 2020, https://mojaloop.io/the-mojaloop-foundation-launches-as-a-charitable-nonprofit-organization-to-advance-the-financial-inclusion-mission-of-mojaloop/. For instance, ID4Africa is registered in Hong Kong. *See* Jaap van der Straaten, "Plutocratic State. Elite Privilege and Bungled Identity Management at the Jugular of Democracy in Ghana.," n. 32.

[361] Olivia White et al., "COVID-19 Has Raised the Stakes for Robust Digital ID," *McKinsey Global Institute* (blog), January 26, 2021, https://www.mckinsey.com/industries/financial-services/our-insights/covid-19-making-the-case-for-robust-digital-financial-infrastructure; Strategic & International Studies, "Enhancing Financial Inclusion through Digital ID," July 8, 2021, https://www.csis.org/analysis/enhancing-financial-inclusion-through-digital-id. Fintech Sub-Group on Digital Identity. "Briefing on Digital Identity," 2018; Carnegie Mellon, Bill & Melinda Gates Foundation, https://www.gatesfoundation.org/about/committed-grants/2019/11/inv003175.

[362] "The Call to Action: Building a digital ID system is no small feat—it is a complex challenge demanding financial investment, technical capacity, sustained leadership, and cross-sectoral coordination.24 Fortunately, there is global experience that can provide lessons about how to develop a digital ID system that is economically viable and able to manage risks. The World Bank's ID4D initiative has spearheaded the development of principles on identification for sustainable development and produced detailed guidelines, diagnostic tools, and frameworks for designing and building such systems.25 The initiative also provides technical assistance to African governments as they develop national ID strategies and roll out inclusive digital ID systems. The G7 can help build more inclusive digital ID systems across Africa by supporting the ID4D initiative's work." Bill & Melinda Gates Foundation, "A G7 Partnership for Women's Digital Financial Inclusion in Africa," July 2019, 10, https://docs.gatesfoundation.org/Documents/WomensDigitalFinancialInclusioninAfrica_English.pdf. (Also citing the example of Aadhaar)

[363] Omidyar Network spun out its fintech arm in 2019, which became Flourish Ventures.

Figure 5. Endorsing organizations of the Principles on Identification for Sustainable Development



the risks and impacts of India's Aadhaar project.[364] This India office was spun out into a separate legal entity in 2019, with the new entity currently under the stewardship of Roopa Kudva,[365] a former Board Member of Nandan Nilekani's company Infosys. Omidyar Network developed an investment portfolio that includes numerous digital ID projects. It should be noted that Omidyar Network funds both proponents of digital ID systems including ID4D, ID4Africa, Smart Africa, and the UN Economic Commission for Africa, and more critical voices such as Unwanted Witness, Namati, and research centers such as Research ICT Africa and the Centre for Internet and Society,[366] as well as our own Digital Welfare State and Human Rights Project.[367] Omidyar Network also funds actors such as MOSIP, ID4Africa, and the International Institute of Information Technology, Bangalore (incubators of MOSIP). Omidyar Network has similarly published extensively on issues of digital ID systems, and created their own *Good ID Principles*. It is also a signatory of the *Principles on Identification for Sustainable Development.*[368]

The group of bilateral funders involved in the MDTF—Australia, the United Kingdom, France, and Norway—have differing levels of engagement and motivation. Australia was the first bilateral donor to get involved, as part of the Commonwealth Digital ID initiative, and has attempted to introduce its own digital ID.[369] The largest bilateral donor, however, is the United Kingdom, which has played a significant role in advancing the discussion on digital identity, both at home and globally. Despite the fact that the UK itself has vowed not to adopt a similar model,[370] the UK government seeks to advance digital identification systems abroad. Funding the ID4D Initiative is a key part of this approach.[371] The French government has also directly invested in some systems, such as in Nigeria's program. French biometrics companies, including Idemia[372] and Thales,[373] have been extremely successful in securing contracts for digital identification projects, particularly in West Africa.[374]

Various private sector actors also make up a significant segment of the broader digital ID network. This includes, first of all, the vendors who supply the technologies for building digital ID systems, including hardware and software. The most visible of these

[364] Omidyar Network, "ID Research Team," *The Identities Project* (blog), accessed May 23, 2022, https://www.identitiesproject.com/team/.
[365] Joseph Rai, "Meet the Kudvas, the Power Couple in Sebi's Firing Line," *Mint*, June 9, 2021, sec. Markets, https://www.livemint.com/market/stock-market-news/meet-the-kudvas-the-power-couple-in-sebi-s-firing-line-11623179454047.html.
[366] Anri van der Spuy et al., "Towards the Evaluation of Socio-Digital ID Ecosystems in Africa: Comparative Analysis of Findings from Ten Country Case Studies," November 2021, https://researchictafrica.net/wp/wp-content/uploads/2021/11/Comparative-Report_5.11.21-2.pdf.
[367] Omidyar Network, "Responsible Technology."
[368] CV Madhukar, "Reimagining Digital Public Infrastructure Is No Longer Just a Development Agenda," *Omidyar Network* (blog), June 29, 2021, https://omidyar.com/reimagining-digital-public-infrastructure-is-no-longer-just-a-development-agenda/.
[369] Mia Hunt, "'Not a Lot to Show' for Australia's $400m Digital ID Programme, Says Former Government CIO - Global Government Forum," October 5, 2022, https://www.globalgovernmentforum.com/not-a-lot-to-show-for-australias-400m-digital-id-programme-says-former-government-cio/.
[370] UK Government Digital Service, "Advisory Group Publishes Identity Assurance Principles for Consultation," June 17, 2013, https://gds.blog.gov.uk/2013/06/17/advisory-group-publishes-identity-assurance-principles-for-consultation/.
[371] UK Department for International Development, "Financial Case"; Foreign Commonwealth and Development Office, "Annual Review-Digital Identity as an Enabler for Development 2021."
[372] Idemia is co-owned by Advent International, a US-based private equity firm, and Banque publique d'investissement (Bpifrance), https://www.adventinternational.com/advent-international-and-bpifrance-complete-the-acquisition-of-safran-identity-security-morpho-and-create-ot-morpho-a-world-leader-in-identification-and-digital-security-technologies/.
[373] Thales has a significant biometrics and identification group, and has delivered trainings in places such as Myanmar. https://www.thalesgroup.com/en/markets/digital-identity-and-security/government. See Reporters Without Borders, "Civil Society Calls on French Company Thales to Put an End to Suspected Indirect Support to the Myanmar Junta," November 30, 2021, https://rsf.org/en/civil-society-calls-french-company-thales-put-end-suspected-indirect-support-myanmar-junta.
[374] Research by Privacy International has shown how a group known as Civipol, owned by French security firms such as Thales and Safran, have been able to win lucrative biometrics contracts in West Africa. Privacy International, "Here's How a Well-Connected Security Company Is Quietly Building Mass Biometric Databases in West Africa with EU Aid Funds."

have perhaps been biometrics companies, but there are many other vendors who supply equipment, software, and training for digital ID systems. The interests of many of these vendors is represented through the Secure Identity Alliance (SIA), which is based in France. SIA describes itself as a non-profit that brings "together public, private and non-government organisations to foster international collaboration, help shape policy, provide technical guidance and share best practice in the implementation of identity programmes."[375] It counts as members major biometric companies, and is an advocate for open standards for identification systems. SIA is one of the endorsing parties of the *Principles on Identification for Sustainable Development.*

Beyond these vendors, another significant segment of the private sector are service providers who will be required or encouraged to use the digital ID platform as part of their transactions with consumers. This includes most notably banks, who are subject to regulations on identity verification, but also other forms of financial products and mobile telecom providers, who are often represented by the Global System for Mobile Communications Association (GSMA). GSMA is headquartered in London and represents more than 750 mobile telecom operators worldwide. The GSMA Foundation was founded in 2007,[376] and has counted the BMGF, the World Bank Digital Development Partnership, the UK Government, and the IFC as funders. It has also been a frequent collaborator with the World Bank.[377] GSMA has published extensively on the links between mobile, identification, and development, and it directly funds programs through its Mobile for Development program.[378]

Still other private sector actors have an interest in digital ID systems, including the largest tech platforms and marketplaces. What many of these actors have in common is that the World Bank has become a sort of 'market maker' for the digital ID marketplace. Interviews by Taylor and Martin found that:

> "the World Bank's large-scale, more structural ID4D program and its partners were frequently cited as key market-makers for the vendors present. It suggests a divide has emerged between organisations working on existing civil registration systems and foundational identities (albeit with the aim of connecting those foundational identification functions to other, more commercial ones), and those attempting to re-imagine national ID systems in lower- and middle-income countries on a self-sovereign, more born-commercial model. Established industry players seem to be betting on ID4D's activities in 63 countries as the main source of future business opportunities, rather than the self-sovereign approach advocated by those developing such technologies."[379]

[375] Secure Identity Alliance is a non-profit organization that represents the interests of a group of biometrics and identification companies. https://secureidentityalliance.org/

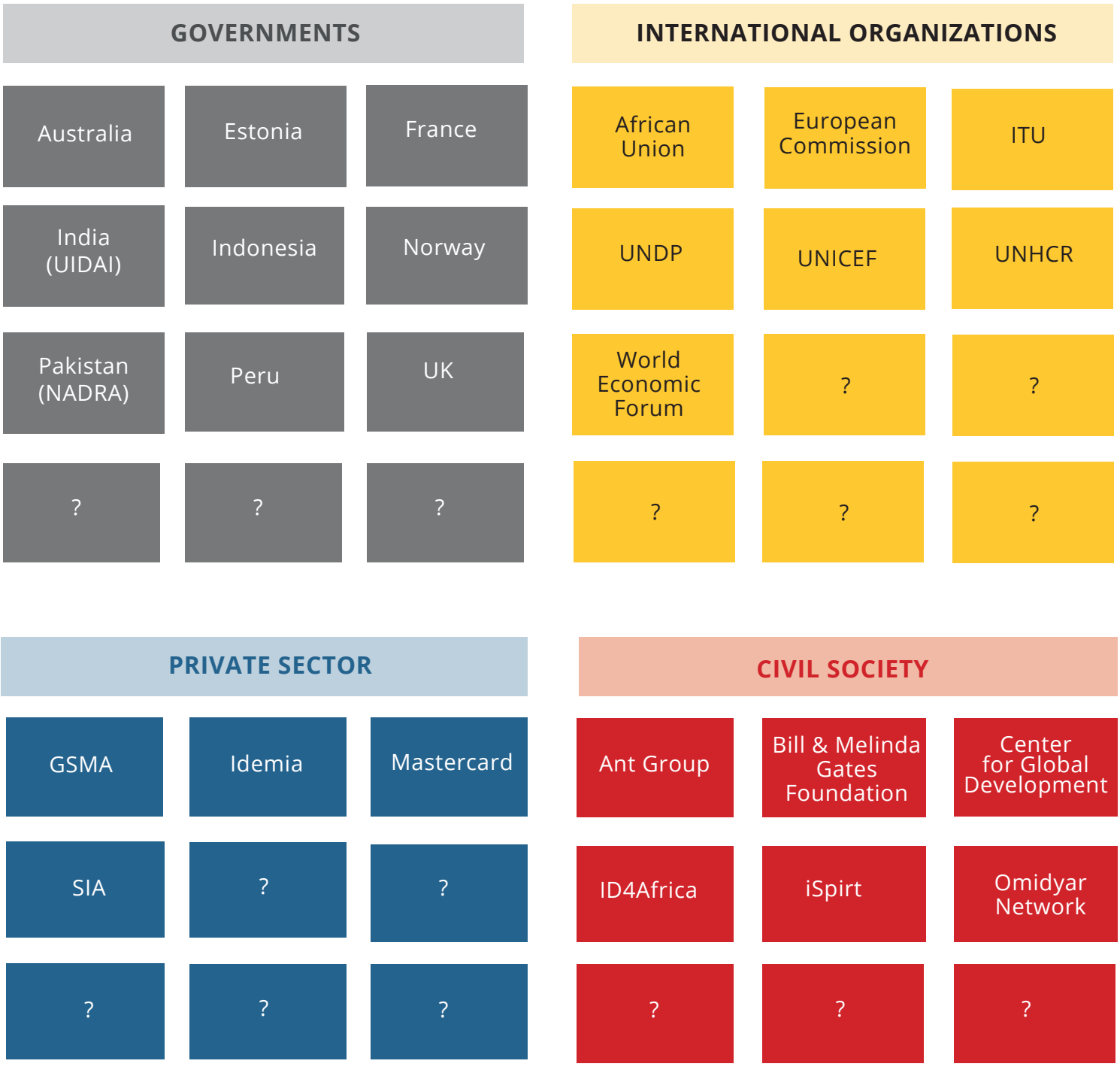
[376] The GSMA Mobile for Development program undertakes research on topics related to digital identity and mobile telecommunications, available here: https://www.gsma.com/mobilefordevelopment/digital-identity/.

[377] GSMA, World Bank Group, and Security Identity Alliance, "Digital Identity: Towards Shared Principles for Public and Private Sector Cooperation" (World Bank, July 2016), https://doi.org/10.1596/24920.

[378] The GSMA, https://www.gsma.com/mobilefordevelopment/digital-identity/.

[379] Martin and Taylor found that in speaking to those in the identification industry, "the World Bank's large-scale, more structural ID4D program and its partners were frequently cited as key market-makers for the vendors present." Aaron Martin and Linnet Taylor, "Give Us Your Poor, Your Unidentified Masses," September 29, 2021, http://globaldatajustice.org/2021-09-29-identity-week-2021/.

Figure 6. Identification for Development Initiative Stakeholders



Overall, the above-mentioned broader network of actors with direct links to ID4D represents only a small fraction of the broader digital identification ecosystem. There are many other actors who have worked directly with ID4D through the High-Level Advisory Council, the Technical Expert Group, and through other joint initiatives. And there are still more who are not connected to ID4D or the World Bank at all and are operating within the network for completely different reasons. Ultimately, the shape and composition of the network can differ drastically when one looks to the country level. For instance, in some countries, the digital ID project has been designed with early involvement from the World Bank and its partners. This is certainly the case with WURI. In other countries, other actors might have had a more dominant role in influencing the national government to make certain policy choices, as was the case with Idemia in Colombia.[380]

There is an urgent need to further map out the broader digital ID network across different contexts to reveal patterns and differences. This primer, because of its focus, can only scratch the surface of this sprawling ecosystem. However, what is clear from this initial mapping is that there is an established network of powerful actors, including ID4D. Many of these actors have a vested interest in perpetuating the current, harmful model of systems. Altering the course of these development therefore requires concerted efforts.

[380] Juan Diego Castañeda, Joan López, and Lucía Camacho, "Biometría en el Estado colombiano ¿Cuándo y cómo se ha justificado su uso?," 2019, 33–35, https://doi.org/10/gp636m.

4. CONCLUSION: A WAY FORWARD FOR THE HUMAN RIGHTS MOVEMENT

As outlined in this primer, and as many of our partners and colleagues have documented, the World Bank and a wider network of global actors are promoting a specific model of digital ID. This model privileges economic identity, is disconnected from legal status, and steers attention away from civil registration. Contrary to the human rights and inclusive development language used to promote this vision of digital ID, this model threatens a range of fundamental rights, from the right to social security to the right to privacy. The purported benefits remain mostly unsubstantiated in the absence of serious baseline studies, cost-benefit and value for money analyses, and impact assessments. Meanwhile, researching and revealing the impacts of these systems has mostly been outsourced to an already overburdened and under-resourced community of human rights organizations, advocates, scholars, journalists, and other civil society actors.

Resisting these developments can seem hopeless at times, despite the high stakes involved. With its significant resources, the World Bank's ID4D Initiative has published a dizzying array of materials emphasizing the benefits and wisdom of its vision of digital ID. It has relied on the legitimacy of the Sustainable Development Goals and human rights to justify its race towards what seems to be an inevitable future. It has fostered a network of actors who have collectively manufactured a new consensus around digital ID and dressed it in the language of development goals and rights. It has facilitated network building and learning, including by evangelizing the experiences of Aadhaar in India. And it has directly supported governments through technical assistance as well as through financing the design and creation of new digital ID systems.

The developments outlined in this primer have been on the radar of an increasingly diverse group of human rights organizations and other NGOs and advocates. But many groups face competing priorities, resource constraints, and informational barriers that make it increasingly difficult to react to new, technical developments such as digital identification systems.[381] All too often, digital ID systems are mired in a lack of transparency. Even the legislation underlying digital ID—where it exists—often does not provide adequate information about what the system will entail. Further still, speaking from our own experience, the field of digital ID is inhospitable to 'outsiders' who have not yet learned the vocabulary, such as the difference between foundational and functional identification systems, or between identification and authentication. Entering this debate will not be made more attractive by the fact that many powerful actors at the national and international level are supportive of the rush towards digital ID. These technical and other barriers to entry may dissuade many civil society actors from straying beyond their field of expertise into this new space.

While there are certainly many challenges to overcome, there are also reasons to be hopeful. As the experience in many Global North countries has been so radically different from that in the Global South, it is clear that the digital ID agenda outlined in this primer is

[381] A small subset of the civil society research on this topic, includes Engine Room, "Understanding the Lived Effects of Digital ID"; Mizue Aizeki and Rashida Richardson, "Smart-City Digital ID Projects Reinforcing Inequality and Increasing Surveillance through Corporate 'Solutions'"; Access Now, "Busting Big ID's Myths"; Privacy International, "Civil Society Achieves Change, but Risks Still Remain in Kenya's New Biometric ID System," Privacy International, April 2, 2019, https://privacyinternational.org/news-analysis/2774/civil-society-achieves-change-risks-still-remain-kenyas-new-biometric-id-system.

not inescapable. Few systems which use a centralized platform, rely heavily on biometrics, or attempt to intrude into every part of personal and private lives, have succeeded in Global North contexts. Rather, alternative models are used, significant concerns among the general public are, to some degree, heeded, and the need for regulation and safeguards appears to be taken more seriously. Furthermore, evidence is emerging of effective pushback against the false inevitability of a digital future centered around biometric digital ID systems. There has already been increasing acknowledgment of the 'dark side' of digital ID systems, and excellent work from researchers, activists, and practitioners is providing us with alternative visions and grounds for contestation and critique.[382] Civil society coalitions in countries such as India, Kenya, Jamaica, Uganda, and Mauritania have achieved inspiring victories in pushing back against certain models of digital ID through their concerted research and advocacy, and occasionally through litigation. New alliances of human rights organizations, other civil society groups, journalists, academic experts, and many others, are being formed to learn from one another and to mobilize against such systems. This is increasingly creating possibilities for achieving change.

In this primer, we have sought to provide a starting point and inspiration for further work. We have referenced extensively the work of our colleagues and partners who have labored to provide answers to many of the most intractable questions. As the impacts of digital ID systems on public and private services, nationality and refugees,[383] public health,[384] surveillance and smart cities[385] become increasingly clear, more interested actors are joining the conversation to critically discuss the role that digital ID systems should (and should not) play in societies.

But what is the best way forward? What are human rights organizations and other civil society actors to do? Perhaps we can seek inspiration from one of the most visible proponents of digital ID systems worldwide, Nandan Nilekani. At an event in 2013 at the Center for Global Development, he described the Indian approach to adopting Aadhaar as follows:

> "Our view was that there's bound to be opposition, right, so that's a given. So we said how do we address that? One was, do it quickly. Because if you do it quickly it's less likely to coalesce against you. The second was do it quietly, get it done. And third was we said that in any case there is going to be a coalition of opponents, so is there a way to create a positive coalition of people who have a stake in its success?"[386]

[382] Masiero and Bailur, "Digital Identity for Development"; Keren Weitzberg et al., "Between Surveillance and Recognition: Rethinking Digital Identity in Aid," *Big Data & Society* 8, no. 1 (January 2021): 205395172110067, https://doi.org/10.1177/20539517211006744; Beduschi, "Rethinking Digital Identity for Post-COVID-19 Societies."

[383] Margie Cheesman, "Self-Sovereignty for Refugees? The Contested Horizons of Digital Identity," *Geopolitics* 0, no. 0 (October 4, 2020): 1–26, https://doi.org/10.1080/14650045.2020.1823836; UN High Commissioner for Refugees, "Global Virtual Summit on Digital Identity for Refugees, Concluding Workshop: Summary Conclusions and Recommendations," October 2019, https://www.unhcr.org/idecosystem/wp-content/uploads/sites/69/2019/12/Conclusions_and_Recommendations.pdf; Manby, "The Sustainable Development Goals and 'Legal Identity for All.'"

[384] Sara L. M. Davis, Nerima Were, and Tara Imalingat, eds., *Digital Health Rights: Initial Analysis*, Global Health Centre Workin Paper ; 27 (Geneva: Graduate Institute of International and Development Studies, Global Health Centre, 2021).

[385] Mizue Aizeki and Rashida Richardson, "Smart-City Digital ID Projects Reinforcing Inequality and Increasing Surveillance through Corporate 'Solutions.'"

[386] Center for Global Development, *The Eighth Annual Richard H. Sabot Lecture: Technology to Leapfrog Development, Nandan Nilekani,* 2013, https://www.youtube.com/watch?v=tt5bKFhXEx4.

In response to this advice, we propose something different. Human rights organizations and other civil society actors can insist on the following:

A. **Not so fast!** Digital ID systems entailing transformational change to government must not be rushed without regard for their potential impacts. Before any new or augmented digital ID systems are rolled out nationwide, it is vital to establish an evidence base and take all necessary steps to anticipate and mitigate possible harms in advance. Baseline studies, research into the specific context, cost-benefit analyses, value for money analyses, and impact assessments are necessary and should be demanded every step of the way.

B. **Make it public:** The design and implementation of new or augmented digital ID systems and any plans in that direction must be discussed thoroughly in democratic forums, including parliaments and public media. Civil society organizations should demand openness with regard to plans, tenders, and the involvement of foreign governments and international organizations.

C. **We are all stakeholders:** The harms associated with digital ID systems are broad and could impact all corners of society. Despite efforts to 'gatekeep' and limit the debate to those with the right technical 'expertise', we are all legitimate stakeholders. It will be important to build a broad coalition of organizations and individuals who can assess whether a digital ID system can help achieve human rights objectives or not.

A. Not So Fast!

The fast pace at which the digital ID agenda has been advancing poses significant challenges to those within the human rights movement and wider civil society. Many organizations and individuals have been caught off guard by rapid developments in digital ID systems in their country or region. It is understandable that many have not closely followed debates on digital ID and other forms of digital government given that, until recently, it was considered the niche of specialized digital rights organizations.[387] Additionally, the full scope and breadth of the human rights implications of such systems are often unclear in the initial stages and may take many years to fully emerge.

While catching up on these developments is important, the onus for proving benefits and avoiding harm must lie primarily on the powerful actors who are involved in promoting, designing, building, and financing digital ID systems at speed. These actors should be able to convincingly show the evidence of benefits and the avoidance of harm. Rather than rushing forward, an evidence base and consideration of the possible impacts of such digital ID systems are indispensable. More specifically, this means that human rights advocates and other actors should:

[387] Victoria Adelmant, Social rights disrupted: how should human rights organizations adapt to digital government? Transformer States Series, October 19, 2021, https://chrgj.org/2021/10/19/social-rights-disrupted-how-should-human-rights-organizations-adapt-to-digital-government/.

- **Ask for independent baseline studies:** Digital ID systems are often promised to increase inclusion or enhance empowerment. But it is impossible to verify such future benefits without having a thorough grasp on the situation at present. Even seemingly simple questions, such as how many individuals in a given country have access to one or more forms of identification, are not always easy to answer. These facts and figures are crucial baselines for assessing future successes or failures of new ID systems, and should be assessed before deciding on any new system.
- **Ask for cost-benefit and value for money analyses:** While many claims are made about the supposed economic and other benefits of digital ID systems, serious cost-benefit analyses are rare.[388] Yet, if a proper and democratic assessment is to be made about the wisdom of implementing a new or augmented digital ID system, the various costs and benefits need to be thoroughly assessed in advance. There are many factors to be taken into account, such as the initial financial cost of designing and building a digital and biometric system, the accompanying costs of investing in ongoing registration capacity and necessary human resources, and the fiscal sustainability of the system. Crucially, the financial and non-financial costs for individuals, especially those who are most marginalized and discriminated against in a given context, must also be considered, as must the implications of reliance on electricity and internet connectivity and the charging of fees within the system. Other important factors to consider include the climate impacts, vendor lock-in, reliance on foreign corporations, cybersecurity risks, and the opportunity costs involved, among many others.
- **Ask for impact assessments**: Even with the most careful preparation in advance, all actors should expect the unexpected. Therefore, it would not only be wise to demand that any roll-out of new digital ID systems be undertaken slowly and cautiously, rather, the impacts must also be thoroughly assessed at every step of the way. In light of the harms which can arise from digital ID systems as outlined in this primer, careful consideration and evaluation of effects is crucial. Apart from other costs and benefits, the impact of these new systems on human rights should be a key component of these assessments, preferably undertaken by independent and well-resourced human rights institutions.

B. Make It Public

Given what we know today about the experiences and realities of digital ID in a growing number of countries, especially in the Global South, the need for openness and debate about such systems is clear. Human rights organizations and civil society

[388] Reetika Khera, 'A "Cost-Benefit" Analysis of UID' (2013) *48 Economic and Political Weekly* 7; Jaap van der Straaten, "Identification for Development It Is Not. 'Inclusive and Trusted Digital ID Can Unlock Opportunities for the World's Most Vulnerable'-A Review. *SSRN Electronic Journal* 2020."

writ large should advocate for debates and decisions around digital ID systems to take place in public. Discussions and decision-making should take place in public forums like parliaments and in public media; decisions should be monitored by watchdogs and other oversight mechanisms; governments should provide maximum transparency around plans and implementation; all relevant facts and materials should be available in the public domain; and governments and international organizations should be transparent about the evidence and baseline studies driving the adoption of the digital ID system at hand. Organizations can contribute to these processes and encourage broader transparency by knowing which questions to ask and undertaking their own research wherever possible. As this primer has made clear, a significant challenge relating to the digital ID agenda has been the difficulties experienced by human rights organizations and civil society to fully grasp what is happening and what exactly is being promoted and rolled out. The following questions may provide some guidance for organizations on the types of questions to ask about existing and proposed digital ID projects:

Key questions to ask about national digital ID projects:

1. **At what stage in the digital identification system roll-out process is the government?** Many governments have already been discussing potential systems with actors such as the World Bank for several years. Others have begun procuring technology, building legal and regulatory frameworks, and implementing systems. Still others have had a digital ID system in place for years, whether with the Bank's involvement or not. Understanding when critical decisions are made about system design and implementation and 'where we are at,' should be the starting point for those seeking to get involved.

2. **Why does the government argue that a new or upgraded digital ID system is needed?** It is vital that civil society can understand and evaluate the rationale behind the chosen model of digital ID and to get an honest accounting of what drives the development of digital ID, from national security to improving social inclusion. They must also be able to critically challenge assumptions about both the benefits and averted costs. This entails the need to understand the purported benefits as well as the theory of change behind these benefits. Civil society organizations must therefore ask: what is the problem to be addressed? What evidence is there of this problem? Can the proposed or existing system address that problem? Might other solutions—non-ID solutions, or solutions based on other forms of ID—address the problem with fewer costs? Civil society organizations should therefore encourage the government to engage in a concrete cost-benefit analysis, and should also bring in relevant experts to scrutinize claims about the benefits and costs. Through their own research, civil society organizations can additionally uncover other motives which may drive the deployment or further development of the digital ID system.

3. **What legal framework or legal protections already exist?** What legal frameworks are in place to safeguard rights, including privacy and access to remedies, for example? Is the legal instrument that establishes the national

digital ID system adequate? Does it include the requirement to undertake human rights impact assessments? This also includes laws and regulations relating to cybersecurity, to exclusion from access to social rights, as well as the legal frameworks defining the relationship between different ID systems. How does the new digital ID system interplay with existing civil registration systems, or to other IDs already in use, including private means of proving identity?

4. **What impact will new investments in a digital ID system have on the existing civil registration and vital statistics system?** How will this affect funding for and organization of matters such as birth registration? Will responsibilities within government shift with regard to registration, such as from social ministries in charge of civil registries to new agencies or ministries? Will new government entities such as National Identification Authorities or Digital Government Agencies be set up? How will these new government entities differ from other parts of government? What plans are in place for the sustainable funding of the national ID, to ensure databases are up to date and accurate? Will funding be diverted away from civil registration as a result of the introduction of a new digital ID system?

5. **Which international development organizations are involved in the funding, design, and building of the digital ID system?** Are global or regional development banks involved? What is the extent of their involvement? How will they contribute to the operational and financial sustainability of the model? It is important to ask for copies of their advice to governments, proposed financing, and other forms of involvement. And, where other international development organizations are involved, what is their involvement? Civil society organizations can ask representatives of these organizations to participate in public hearings and other open forms of government which allow organizations to hold foreign actors accountable for their work.

6. **Which private foundations and donors are involved in funding or supporting aspects of the national ID system?** What has been their role to date and what do they propose? How will they contribute to the operational and financial sustainability of the model? What motivates them? Can they be lobbied to use their influence in productive ways? Civil society organizations might find ways to raise donors' awareness about the realities of digital ID systems.

7. **Which private sector actors are involved?** Who is building the technical components of the system—and in which other countries have they been active? When it comes to foreign vendors, civil society organizations can scrutinize their track record in other countries, as many will have fulfilled similar projects elsewhere. Organizations can also call on the government to ensure that any procurement takes place openly and transparently and allows for civil society to comment on the process and outcomes.

8. **Which foreign governments have been involved in the digital ID project?** What is the nature and extent of their involvement? What motivates their involvement? Are they tied to private vendors or private interests? Will data and

information be held in foreign jurisdictions? Will key decisions be made outside of the country?

9. **Which other individuals and civil society organizations will need to be engaged to adequately address different aspects of the system?** What kinds of alliances and coalitions, both domestically and across national borders, might be beneficial in addressing the impacts of digital ID systems? Who works with the communities that will be most affected by the digital ID system, and how can they be best engaged? This should look beyond 'traditional' human rights actors, to include many other types of actors and organizations.

10. **How can comparative and international examples help support the work?** A broad range of civil society organizations around the globe are working on these issues, and there is great enthusiasm to share lessons and exchange knowledge. Civil society organizations should look to the growing coordinated global advocacy efforts, to join forces and learn from prior advocacy efforts around digital ID systems. They might ask, how can we connect national-level campaigns with international partners and campaigns? In response to the global digital ID agenda, how can we globalize our advocacy? In addition to lessons learned from other civil society organizations and previous efforts, there is also a great deal to be learned from international and comparative law about how to best safeguard rights in relation to digital ID systems.

C. We are All Stakeholders!

We have seen that governments are very often relying on the same small group of international organizations, foundations, and technology vendors for strategic, conceptual, practical, and financial support to design or upgrade their national digital ID systems. We have detailed the role of the World Bank, and more specifically its ID4D Initiative, within this agenda. The World Bank is only one actor within a much broader global network of international organizations, foundations, consulting firms, governments, and other entities who are collectively shaping the future of digital ID systems. But it has sought to place itself at the center of this network and is serving a key role as a globally respected advisor of governments, in legitimating ideas about digital identification processes, in convening the global network, and in funding digital ID projects.

Yet there are many more stakeholders who have a legitimate role in these debates. Hundreds of civil society organizations and experts around the world have already been working on issues related to digital ID systems, as well as on related questions surrounding refugee ID systems, birth registration, and statistical capacity. Still others work with communities directly affected by digital ID systems and on the biometric and digital technologies used in these systems.[389] There is already a wide variety of expertise and knowledge to help civil society organizations to navigate the emerging landscape of

[389] The experts working in this field are too many to list here, but have been referenced throughout this report in the many footnotes. A small group has also been listed in the acknowledgements section but many more have contributed to the development of this report through informal conversations, participation in joint events, and through their work.

digital ID systems. But it is important to realize that, ultimately, everyone has a stake in systems of identification, digital or otherwise, which are essential to recognize individuals and effectuate their human rights.

Broad coalitions of human rights organizations, individual experts, journalists, activists, civil society organizations including community organizers, and affected communities, are not merely legitimate stakeholders, but they will be instrumental in changing the direction of travel of harmful digital identification systems. More and more organizations and experts are beginning to grapple with the rapid spread of digital ID around the world, from digital rights organizations to groups representing people with disabilities, and from experts working on social and economic rights to development economists. As this range of organizations grows, it will be crucial to share experiences, learn from one another, and coordinate advocacy. Contestation of digital ID systems must be seen as a global matter, mirroring the global network of powerful actors which are shaping national digital ID initiatives, as has been described in this primer. To date, efforts to resist digital ID systems have largely remained siloed and local, often disconnected from the work of international organizations working on digital ID and human rights. Looking to the coordinated global digital ID agenda and mapping the international actors shaping and promoting these systems highlights the need for a globally coordinated response.

Multidisciplinary and geographically spread alliances can not only help to ensure that digital ID systems are not deployed in the harmful ways described in this primer. They can also help reimagine what the digital future *without* the particular model of ID systems promoted by the World Bank and others could look like. As digital ID systems are determining the shape of governments and societies as we hurtle into the digital era, questions as to their form and design—and their very existence in the first place—are critical. What alternative visions can we offer that will better safeguard human rights and preserve the gains of countless years of struggle to improve the recognition and institutionalization of rights? When we bring together actors who want a society where the human rights of every individual and group are protected, what kinds of digital ID systems might we imagine? How might digital ID systems be designed to truly promote human well-being? How would this alternative, rights-fulfilling vision differ from the economic, transactional identity described here, as promoted by the World Bank and others? Indeed, would we have digitalized identification systems at all?

We have not sought to provide answers to these questions in this primer. Nor have we attempted to set out this alternative vision of digital ID. Rather, our aim has been to bring together the excellent work that our partners, colleagues, and others have tirelessly undertaken around the world. Through a collective, collaborative effort to collate the existing evidence on digital ID systems and their implications across varied contexts, we sought to shed light on the global dynamics at play. Pointing to the broad, often under-acknowledged, network of actors influencing the digital ID agenda, we hope to assist future advocacy efforts surrounding digital ID. Through working collaboratively to break through barriers of geography and expertise, sharing lessons learned and coordinating efforts, we can seek to ensure that the future of digital ID enhances, rather than jeopardizes, the enjoyment of human rights.

ANNEX I: THE WORLD BANK IDENTIFICATION FOR DEVELOPMENT (ID4D) INITIATIVE'S RESPONSE TO THIS PRIMER

A draft version of this primer was shared with staff at the Identification for Development Initiative of the World Bank on 23 May 2022, a few weeks before the publication of this document. We thank the ID4D team for their extensive comments and feedback, which we have taken into account. At the ID4D team's request, their responses are included below in the following text and table. Please note that references to pages and content refer to the previous draft.

World Bank ID4D Initiative's Work

The World Bank Group established the Identification for Development (ID4D) initiative in 2014 in response to growing global momentum around the role that access to identification and well-designed ID systems—which includes civil registration systems—can play in accelerating inclusive development, including through poverty reduction and gender empowerment. A year earlier, in 2013, the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda proposed a development objective on legal identity, which later became SDG target 16.9.

The experience of many countries in Latin America, East Asia and Europe demonstrated how well-designed ID systems can enhance access to and delivery of government and private sector services essential for social inclusion. This was also not a new agenda: UN agencies and regional development banks were working on it in various ways and sometimes with different nomenclature, such as the UN Department of Economic Social Affairs' work on population registration for public administration that dates back from the 1960s. More than 180 out of nearly 200 countries in the ID4D dataset have established various types of foundational ID systems over the past 30 years (earlier in the case of European countries).

A unique and powerful feature of the ID4D initiative is that it brings together various sectors that work on and stand to benefit from ID systems, such as social protection, financial services, health, governance, agriculture, education, social inclusion, forced displacement, and digital development. This also reflects the organic nature of ID4D's establishment in that these sectors were grappling with issues around ID systems, but through different lenses and sometimes fragmented interventions. ID4D has brought a comprehensive and coherent approach, including with a focus on the usage of ID systems (rather than ID systems as an end in themselves). This has made it possible to achieve impact greater than the sum of the parts.

Crucially, the outcome has been not just an increase in the amount of technical and financial support available to interested countries and in research and data collection, but also an increase in understanding among key stakeholders about what makes an ID system inclusive and trusted in service of development goals. For example, 30 organizations, including the World Bank, other UN agencies and other stakeholders, have come together to co-develop the ten *Principles on Identification for Sustainable Development*, which include safeguards on data security, data protection, individual rights and non-discrimination. Similarly, the World Bank and the UN developed a common definition of legal identity.

The support provided by the World Bank through the ID4D initiative is based on requests received from countries, based on their priorities. A critical element of this support is that there is no single model for ID systems in a country and that every country has its own unique context that requires a tailored approach. Notwithstanding. ID4D has adopted a rigorous due diligence approach in evaluating whether to finance these member-country requests, including ensuring fundamental rights. For example, when countries request technical and financial assistance, the ID4D Diagnostics, ID Enabling Environment Assessments (IDEEA), qualitative end-user surveys, and other analyses that the World Bank carries out helps those countries evaluate different options in light of existing systems and legal frameworks, people's needs, and benefits and risks across sectors. This process is guided by the *Principles*, which provide an overarching normative framework and allow the World Bank and other actors to promote good practices related to inclusion, design, and governance of ID systems. Country experiences are an essential part of the continuous work to adapt and improve, such as how India managed to reach scale at higher speed and lower cost, how Thailand bases its ID system on civil registration, and how European countries secure their ID systems and provide people with greater control over their personal data. Examples of particular successes, innovations, or good practices from these cases and more

are used as illustrations in advice to countries and in publications. No ID system is perfect or a blueprint for others, but this knowledge sharing and learning about what has worked and what has not worked is essential for reducing information and experience gaps.

As a result, ID4D engagements are very diverse. For instance, World Bank teams are helping several countries to consider federated or decentralized models for ID systems, and some countries want to introduce ID systems de-linked from nationality or status as a mechanism to ensure maximal social inclusion. Other countries are being supported to use more traditional approaches. The World Bank is one of the largest supporters for the development of civil registration systems around the world: 26 of 55 active and pipeline IDA/IBRD projects are making direct investments in the development of civil registration systems worth more than $390 million, including from the Global Financing Facility (GFF) for Women, Children, and Adolescents. This amount does not include other indirect investments in the development of civil registration systems, such as in institutional strengthening of agencies responsible for ID and civil registration systems. In many other projects, support for ID systems is being coordinated with other development partners supporting civil registration and other ID-related projects.

Examples

The following are examples of how the World Bank has incorporated the *Principles* into our technical and financial assistance and knowledge products[1]:

- Catalyzing progress on data protection and data governance, including technical assistance and financial **support for the strengthening of data protection legal frameworks** according to international best practice, to ensure fair and transparent processing of personal data both in the ID and the broader digital economy contexts as well as to provide independent oversight on such processing to foster trust within the ID system and more generally across other systems that process personal data.
- Working with CSOs and development partners to **fill gaps in global guidelines for the inclusion of groups that have historically faced discrimination** and other barriers in accessing ID and CR, such as women and girls (*forthcoming*), persons with disabilities, and sexual and gender minorities; working with governments to incorporate these measures in practice.
- Assessing legal frameworks and providing technical and financial assistance **for reforming existing laws and regulations or enacting new ones in line with good practices,** such as by eliminating onerous documentary requirements, and removing mandates that the ID is required for access to certain services.
- Promoting and supporting governments to **engage early, regularly, and constructively with CSOs and community groups** and communicate more transparently with the public. This includes financing for establishing and empowering social accountability initiatives. A forthcoming guide developed in consultation with and input from over 40 CSOs provides recommendations resources for more sustained and continuous engagement.
- Ensuring that **system design and enrollment procedures are maximally inclusive** through outreach and consultation with marginalized and vulnerable groups and community-based campaigns; prioritization of low-income groups, women, rural-dwellers, IDPs, and persons with disabilities; removing fees or other

[1] See links embedded in the bullets below as well as, *inter alia:* https://id4d.worldbank.org/qualitative-research, https://id4d.worldbank.org/legal-assessment, https://id4d.worldbank.org/guide/assess-risks; https://id4d.worldbank.org/guide/safeguards, https://id4d.worldbank.org/guide/privacy-security, https://id4d.worldbank.org/guide/public-engagement, https://documents.worldbank.org/en/publication/documents-reports/documentdetail/508291571358375350/digital-id-and-the-data-protection-challenge-practitioners-note.

procedural requirements; conducting and evaluating pilots to detect and correct potential exclusion factors before full implementation; implementing strong exception handling and grievance redress procedures.

- Providing technical assistance and financing for privacy enhancing technologies and **people-centric** features, including reducing the number of biographic and biometric data fields collected; removing unnecessary personal information from visible credentials; adopting tokenization to limit the exposure and use of UINs; and implementing citizen data portals to view, limit, and consent to data sharing, among others.
- Undertaking or supporting governments to **complete studies and risk analyses**—e.g., qualitative research, human-centered design exercises, social impact assessments, privacy impact assessments, and civil society and community consultations—to understand the issues people face accessing or using current ID and CR systems and evaluate risks as a direct input to project design and implementation.
- **Actively supporting new research and independent studies**, such as impact evaluations**,** to fill existing knowledge gaps and providing assistance to countries to build robust monitoring, learning, and evaluation strategies and systems that can better monitor progress, catch exclusion error and performance issues, provide data to the public and researchers, and rigorously measure impact.

Specific errors and clarifications based on the draft received on May 23

Please note that the following table does not contain an exhaustive list of corrections and responses but instead prioritizes corrections of key factual inaccuracies.

	Issue	**Comment/Response**
1.	Definition of "digital ID" used by the authors (beginning on page 4 and throughout, including the summary of "characteristics" of a "subset of digital ID systems" on page 17 and p. 32)	The World Bank defines digital ID as follows: "Digital ID systems are those that use digital technology throughout the identity lifecycle, including for data capture, validation, storage, and transfer; credential management; and identity verification and authentication. Although the term "digital ID" often connotes identity credentials used for web-based or virtual transactions (e.g., for logging into an e-service portal), digital IDs can also be used for stronger in-person (and offline) authentication." (ID4D Practitioner's Guide). This definition does not require biometrics (see below) or prescribe any particular technology, and is consistent with centralized, federated, and decentralized approaches to managing identity information and providing identity services.
2.	Biometrics as a mandatory feature of digital ID systems (beginning on page 4, page 17 and throughout) and 45: "Despite its intractability and potential for scope creep, biometrics are considered in Bank documentation to be part of a 'minimal dataset.'"	The WB / ID4D does not advocate that biometrics are required for a (digital) ID system and this is stated explicitly in the ID4D Practitioner's Guide and elsewhere: "***At the same time, however, biometrics are not required or appropriate in all contexts****. In particular, the collection and use of biometric data presents some particular data protection and exclusion risks and can significantly add to the cost of the ID system and add operational complexity. The choice to use biometrics—as well as the particular type of biometric data collected—should be informed by these risks and costs, as well as the objectives, planned use cases, and other constraints to the ID system identified in the planning phase."* The World Bank has not defined a minimum dataset. What the project document referenced is that minimal data—rather than lots of data—will be collected, in alignment with good practices. See, for example: https://id4d.worldbank.org/guide/biographic-data.
3.	Definition of "foundational" ID (page 12 and throughout, e.g., "This model also closely aligns with the concept of a 'foundational identity', a term made popular by Gelb and Clark in their influential	As set out by Gelb and Clark (2013) and used in ID4D materials and work, foundational is simply a category used to distinguish between systems designed to provide government-recognized identification for general purposes (foundational), from "functional" ID system that are provided for specific sectors and purposes (e.g., voter ID, SSN). As such, it incorporates a wide variety of

	2013 paper. Foundational ID does not require a link to legal recognition of rights")	models, including national ID systems, civil registration systems and population registers, and other "unique" or "digital" ID systems that are not specific to a sector, but generally intended to provide authoritative sources of a person's legal identity. The report should use the World Bank's definition of foundational ID from the Practitioners' Guide or as reflected in the Principles. Specific terms used to name ID systems in World Bank projects are defined by/adapted to a country based on its own nomenclature and model, and may not apply universally.
4.	"transactional" or "economic" identity (page 11 and throughout)	ID4D does not use the terms "transactional identity" or "economic identity".
5.	Uganda national ID system (p. 14, etc.)	The World Bank has never been involved in financing Uganda's national ID system. The World Bank is supporting the strengthening of the birth and death registration system.
6.	On p. 11: **"**The Bank still invests in 'traditional' CRVS and birth registration systems, but now argues for *"a collective paradigm shift in how these ecosystems are designed, implemented, and used.""*	The paradigm shift called for in the Annual Report is *not* about CRVS systems no longer being sufficient, nor about "an economic form of ID". Rather, the article is about the elements described in the article and the Principles that would equally apply to CRVS systems, for instance: • Strong leadership, ownership and country capacity • Establishing comprehensive legal and institutional frameworks, especially for data protection and cybersecurity • Apply human-centered design to reduce exclusion • Considering non-centralized approaches
7.	On p. 11: "Indeed, according to Mariana Dahan, the first coordinator of the Bank's ID4D Working Group, the main driver for the growing interest in digital ID was technological progress."	The blog post referenced to support this does not point to technological progress being "main driver for the growing interest in digital ID". The first paragraphs of the article talk about statelessness and refugees.
8.	On p. 11: "Achieving this goal requires increasing the coverage of existing ID systems to include the more than a billion people who, according to the World Bank, do not have proof of their legal identity."	The most recent edition of the ID4D Global Dataset (2018) estimates this to be "just under 1 billion". This includes adults without ID as well as children whose births have not been registered.
9.	On p. 13: "In the Philippines, several years of ID4D technical assistance provided to the government	DPFs are non-earmarked general budget support for a program of institutional reforms, i.e., they do not allocate funding for specific activities.

	has now culminated in approval of Development Policy Funding (DPF) of $600 million USD that includes an allocation to fast-track the PhilSys ID system, which has emerged as a priority in the wake of COVID-19."	In the case of this DPF series, PhilSys represents only 3 of 15 actions, which do not involve an "allocation to fast-track the PhilSys". The actions were: 1. Through the Philippine Identification System Act (RA No. 11055) and Implementing Rules and Regulations, the government has created the legal and regulatory framework for a foundational ID system that aims to improve service delivery and financial inclusion for citizens and resident aliens. 2. As evidenced by the implementation progress report issued by Philippine Statistics Authority (PSA) on December 27, 2019, the PSA has piloted the registration for Philippine Identification System (PhilSys) for a limited and monitored set of sites and target populations to prepare for registration at scale. 3. The government has launched the registration campaign for PhilSys and adopted the PhilSys for social assistance beneficiary identification and verification
10.	On p. 13: "In the Economic Community of West African States (ECOWAS), six countries have been selected to receive funding through the West African Unique Regional Integration and Identification project (WURI), using a mixture of IDA grants and credits, […]."	Countries request funding and are not "selected". The correct name of the WURI program is (here, and in other places): "West Africa Unique Identification for Regional Integration and Inclusion (WURI) program".
11.	On p. 13: "And in Mexico, the Bank has pledged a new DPF loan of $1 billion USD which includes $225 million USD towards the efforts of the Mexican government to build a centralized biometric database and personal identification service."	There is a $225m standalone investment project financing (IPF) project that is investing in both ID and civil registration. Regarding the COVID-19 Financial Access DPF, as noted above, DPFs are non-earmarked general budget support for a program of institutional reforms. The actions related to ID and civil registration are 2 of 9 actions. The first is the establishment of an organizational unit to facilitate identity verification services. The second is binding legal agreements to facilitate interoperability and standardization among the state civil registries.

12.	On p. 13: “Similarly, the Nigeria Digital Identification for Development Project, also funded by the Bank, will not take legal status into account.”	As a measure to promote inclusion of migrants, refugees, other non-citizens, people without prior documentation, and persons at risk of statelessness, the Nigeria project is supporting the country to allow non-nationals to access the foundational ID system.
13.	On p. 13: “By supporting systems that separate formal legal recognition within existing human rights frameworks from identification, the Bank diverts efforts and resources away from providing individuals, especially newborns, with a legal status and associated rights and other benefits, as required under international human rights law.” and On p. 31: “Following the Aadhaar model, the ID4D Agenda has distanced itself from systems that aim to confer a form of legal identity from which legal status, entitlements, and rights flow.”	There are many examples of World Bank projects that do not separate legal status from identification. World Bank resources are not being diverted away from civil registration; the amount the World Bank has invested in civil registration since the establishment of ID4D has increased significantly. Currently, there are 26 active and pipeline projects investing more than $390 million into development of civil registration systems.
14.	On p.19-20: “The digital components in new systems simply make many of these processes of exclusion more efficient and more complete, as happened to people of Haitian descent in the Dominican Republic, after a landmark lawsuit in 2013 allowed them to be stripped of their citizenship and excluded from healthcare, welfare and education, through a program supported by IOs including the World Bank.”	The cited book is not accessible. Therefore, it’s difficult to respond to the citation. However, starting in 2007 through to closure in 2012, the World Bank project invested in the civil registry to provide birth certificates and national ID cards to undocumented persons. The Supreme Court ruling in 2013 has nothing to do with the World Bank project. Furthermore, this Project preceded the ID4D initiative.
15.	On p. 21: “The centralization or concentration of data, which has been significantly augmented by digital technologies, also leads to significant new risks. This has happened even in countries that already have a functioning national ID system, such as Mexico, where draft legislation has been	The Mexican system already involved a centralized database before any proposed change in the legislation. The Bill proposed a set of standards and basic information that birth certificates needed because each state was issuing it in different formats.

	introduced to move towards a centralized database."	Digitalization also permits additional technical and legal safeguards around personal data that do not exist or apply to old, analogue and paper-based systems.
16.	On p. 26: "World Bank Group affiliates such as the Consultative Group to Assist the Poor, the Better than Cash Alliance, and the FIDO alliance seized on digital ID […]"	Neither the Better than Cash Alliance nor the FIDO alliance are World Bank affiliates.
17.	On p. 26: "The policymaking focus shifted to 'fintech' solutions; the International Finance Corporation began investing in fintech and biometrics companies, […]".	Net1, the only company mentioned in the footnote, is not a biometrics company.
18.	On p. 29: "Building on this basic premise, the World Bank then came to argue that providing proof of legal identity would help to: i) establish legal rights, such as nationality or refugee status; ii) facilitate access to public and private services; iii) increase financial inclusion; iv) build government capacity and statistics; v) open new opportunities for the private sector, vi) manage elections; and vii) and safeguard national security through border control, military, and policing."	To our knowledge there is no reference in the World Bank documents in the footnote that refer to "safeguard[ing] national security, border control, military and policing". (points i-vi are not unique to the World Bank but have been argued by various development actors over decades).
19.	On p. 31: "A working group of UN agencies and international actors known as the UN-Legal Identity Expert Working Group, of whom the World Bank is a partner, defines legal identity as follows: […]".	This definition was developed jointly by the World Bank and UN LIEG (which is now UNLIA).
20.	On P. 35: "Since 2016, ID4D has received over $90 million USD in Donor Contributions through an IBRD Multi-donor Trust Fund (Trust Fund No. 072728)." and	The MDTF has received commitments for around $67 million; $20 million has been committed from BMGF between 2016 and today.

	"The largest single supporter of the ID4D Initiative, remains the Bill & Melinda Gates Foundation, who have to date contributed almost $50 million USD".	
21.	On p.37: "the 2018 Annual Report reported that at least 140 staff across the Bank were working on ID related issues".	This is not full-time staff count. ID-related issues make up varying proportions of their time.
22.	On p. 39: "The World Bank furthermore facilitated that representations from countries like Morocco, Philippines and Myanmar, as well as Russia and Tunisia could visit with UIDAI representatives to learn about Aadhaar."	The ID4D Initiative has not organized visits to India for Myanmar and Russia.
23.	On P. 39: "The World Bank also sits on the Board of MOSIP." and "The complex relationship between ID4D, UIDAI and many of its funders is also intensified by the continued promotion of the Modular Open-Source Identity Project (MOSIP)."	The World Bank is a member of the International Advisory Group (not Board), along with representatives from the UN, civil society, and academia. (Note that MOSIP was developed to help countries to avoid vendor lock-in, which has been a significant challenge in ID and CR systems for decades.)
24.	On p. 40: "Specific letters of concern have highlighted the human rights costs of digital ID systems in Afghanistan, Mexico, and Uganda" and On p. 46: "But in other situations, such as Afghanistan, the Bank invested significantly in several different biometric databases including the foundational e-Tazkira system, despite early concerns raised about the use of the various databases within the unstable situation Afghanistan found itself in.	The World Bank has never funded the e-Tazkira, nor Uganda national ID system. For Uganda, the World Bank is supporting the strengthening of the birth and death registration system.

25.	On p. 41: "This was quickly followed by the West African Unique Regional Identification and Integration Project, approved by the Board in June 2018, and another digital ID project in Djibouti, which was approved in April 2018. In the following year, the WBG Board approved projects for Afghanistan, Somalia, Tonga, and Tunisia. By 2019, the Bank funding involved at least 27 ID4D related projects."	ID was removed from the Djibouti project, following restructuring. The approved project in Afghanistan was not related to the e-Tazkira. The project in Tonga includes ID and civil registration. The project in Tunisia is supporting legal frameworks and sectoral service delivery systems and ID / registers (for social protection, health) and their links with civil registration and the unique population identifier (IUC); however these foundational ID systems themselves are financed by the African Development Bank. Additionally, the WBG does not have a board; the IBRD/ID has a board, IFC has a Board, MIGA has a board.
26.	On P. 41: "WURI, for instance is the first major regional system that the Bank has been directly involved in designing and implementing". and "Meanwhile, the WURI countries are all at different stages of development and will also be adopting different technical solutions to provide a core unique identification system."	WURI is not a "regional system. It is supporting the development of individual foundational unique identification systems in each of the participating countries, which are interoperable with mutually recognizable credentials. There is no single, "core" regional ID system or database being established.
27.	On p. 41: the table	For Mexico: The correct name of the Mexico ID project is Mexico National Digital Identity System to Facilitate Inclusion Project. This is a $225mn IPF. The DPF is the COVID-19 Financial Access DPF – please refer to feedback above about the nature of the instrument and activities. For the Philippines: Beneficiary FIRST is the "Beneficiary FIRST Social Protection project", and the Covid-19 DPF is not related to PhilSys. The authors probably meant the Competitiveness and Resilience DPF. For WURI: the program is called West Africa Unique Identification for Regional Integration and Inclusion (WURI) Program.

28.	On p. 42: "These four projects: 1) use similar language as used in other ID4D reports to justify the investment made; 2) target social protection systems and their poor beneficiaries as 'test cases'; 3) use the ID4D diagnostic tool to create a sense of inevitability about the particular ID system proposed; 4) emphasize the same key 'features' of digital ID systems the World Bank promotes more generally; 5) delink the digital ID from legal status and emphasizes transactional or economic identity; and 6) portrays human rights risks as 'manageable'." and On p. 44: "Perhaps unsurprisingly given the similarities across diagnostics, the ultimate design choices made in these four different projects and contexts are similar to each other—and to the Aadhaar system".	There are many differences across these four engagements, including with respect to institutional arrangements, technical design features, whether they are reforming existing foundational ID (ID, CR, etc.) systems or creating new ones, eligibility requirements, linkages between ID and civil registration, data collected, services the ID systems will provide, etc. For instance, the systems in Mexico and the Philippines are linked with civil registration, and collect information on nationality and legal status. The Nigeria project is also investing in digitalization of civil registration. And WURI has a regional interoperability element. What is a commonality is that obtaining the ID is open regardless of nationality (in an effort to maximize access to all residents). To our knowledge, the phrase "test cases" is not used.
29.	On p. 42: "Notably, all four of these projects also target social protection systems as early use cases."	Decisions on use cases are the Governments'. It is worth acknowledging that social protection is a use case for most foundational ID systems and many foundational ID systems in Western Europe are historically linked to the development of the welfare state. For all four engagements cited, there are many more use cases including public services, healthcare, and financial inclusion.
30.	On p. 44: "A key assumption of the diagnostic is that greater integration is necessarily beneficial, with level four, the highest level, defined as: *Most private and public transactions can be done with single ID at national level; same advanced authentication standards used across programs. Vast majority of government MIS can be linked by unique ID or through other mechanism. Regulated*	Looking into the citations, we found that the quote is from the Annex of the Morocco ID4D Diagnostic report and not the ID4D Diagnostic tool. The Morocco Diagnostic report pre-dates the development of the Diagnostic tool. The Diagnostic process involves understanding the local context and provides locally-appropriate recommendations. This is aligned with the call within the paper for more research and analysis.

	access to data that ensures data protection and privacy is effectively enforced and monitored." And "Across these four examples, the 'diagnostic' process has been used as a tool to reinforce policy recommendations that ID4D was already convinced of as leading to 'good ID'."	
31.	On p. 44: "The diagnostic leaves little room for the potential that using fragmented, functional IDs rather than a single foundational system, might be a better option. This is certainly the approach adopted in many Global North countries, which have consistently declined to move towards what the bank would consider a more integrated model.".	182 out of 198 countries have some type of foundational ID system that is widely used across government and often private sector systems. This includes most of Europe, Japan, Republic of Korea, and other countries in the "Global North". In many of countries that do not, other "functional" or sector-specific ID systems have become the de facto foundational ID as they are used for multiple purposes (e.g., the social security number in the United States).
32.	On p. 47: "The Principles, first developed in 2017, have been led by the ID4D Initiative and their key partner the Center for Global Development. Together these organizations act as the anchor for these principles, with other organizations joining as endorsers."	While the World Bank initially convened the process, the Principles were co-developed and are co-owned by the 30 endorsing organizations, such as UNICEF, UNDP, UNHCR, IOM, WFP, IOM, ITU, UNCDF, UNECA, ADB, AfDB, Plan International—our ownership is equal to that of other creators/endorsers.
33.	On p. 48: "The largest bilateral donor, however, is the United Kingdom, who has played a significant role in advancing the discussion on digital identity, both at home and globally. Through its Government Digital Service, the UK government has sought to advance digital identification systems abroad and has made funding ID4D Initiative a key part of this approach."	The UK's funding for the ID4D MDTF is through FCDO and not GDS.