

DIGITAL IDENTITY: EMERGING TRENDS, DEBATES and CONTROVERSIES

W @ M E N
I N I D E N T I T Y

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OVERVIEW

This review, while not exhaustive, covers the broad range of arguments, trends, and patterns from the emerging field of digital identity scholarship.

Digital identity comprises of data attributes unique to each individual to determine a person is who they say they are. Identity systems capture the processes of “recording...certain attributes – biodata, biometrics, claims – ...that [grant] specific rights or permissions to the individual”.¹ They serve as mediators by guaranteeing access to a wide range of public and private services.

At present, 1.1 billion people around the world have no form of legal existence. In a global effort to tackle high levels of under-registration, over the next decade the Sustainable Development Goals (SDGs) are aiming to support states in providing all citizens with their own identity.² The private sector, intergovernmental organizations and governments are hailing digital identity systems as a key tool in providing the world’s population – particularly the income poor – with their unique ID.³ These stakeholders maintain that digital identity has the potential to “revolutionise the lives of the poor, unlock development and prosperity, and accelerate progress towards the Global Goals.”⁴

The expansion of digital identity is facilitating the generation of big data which stores personal information about individuals and their preferences. These technologies can identify an individual and scrutinize their daily habits and behaviors. It can even predict and predetermine a person’s personality traits and emotional responses to specific situations.

Digital ID systems render our day-to-day interactions more visible to a whole host of different stakeholders.⁵ The production of “vital statistics” can be beneficial to researchers, policymakers, academics and international development specialists as it facilitates the collation of targeted data that prioritizes the delivery of services and aid interventions.⁶ Notwithstanding, there is growing malaise from some grassroots organizations, advocacy and campaign groups about the role of digital identity systems.⁷ They fear that an overreliance on digital ID systems can pose a threat to the protection of individual data and, by extension, an individual’s privacy.⁸

1. Donner, Jonathan. 2018. “The Difference Between Digital Identity, Identification, and ID.” Caribou Digital. December 19.

2. Although the SDGs do not refer to digital identity as a specific target, SDG 16.9 aims by 2030 to “provide legal identity for all including free birth registrations”. See World Bank Group. 2022. Principles on Identification for Sustainable Development: Toward the Digital Age. Washington, D.C.

3. Martin, Aaron and Linnet Taylor. 2021. Give us your poor; your unidentified masses. Global Data Justice.

4. DFID, UK Department for International Development. 2018. Digital Strategy 2018-2020: Doing Development in a Digital World. London.

5. Bennett, Colin J., and David Lyon, eds. 2008. Playing the Identity Card: Surveillance, Security and Identification in Global Perspective. Routledge. See also Lyon, David. 2009. Identifying Citizens: ID Cards as Surveillance. Cambridge: Polity.

6. Mahapatra, Prasanta et al. 2007. “Civil Registration Systems and Vital Statistics: Successes and Missed Opportunities.” Lancet 370 (9599): 1653–63.

7. See also Peters, B Guy. 2016. “Civil Registration and Vital Statistics as a Tool to Improve Public Management.” (August). See this open letter from Access Now which is addressed to the leaders of international development banks, the United Nations, international aid organisations, funding agencies, and national governments.

8. Gates, Kelly A. 2011. Our Biometric Future: Facial Recognition Technology and the Culture of Surveillance. New York: New York University Press.

WHAT IS DIGITAL IDENTITY?

Modern-day identification systems play the role of “talking things”.⁹ More than simply verify the status of a person,¹⁰ digital identity is central to the overall management, regulation and classification of people. Typically, this includes the use of biometrics, such as fingerprints, iris scans or facial recognition technologies.¹¹ These are unique to the individual and help prove that the bearer of an ID document matches with their biometric data.

The process of digital identification is broadly defined in three major stages: **identification**, **authentication and authorization**.¹² This three-stage process ensures an individual can use their digital ID to unlock access to services. This can include, but is not limited to, healthcare, welfare, education, voting rights, the banking sector, and more.



The first stage, **identification**, establishes an individual is providing a true representation of their identity. This typically includes some form of evidentiary proof of status, such as a state-issued birth certificate and/or a national identity card.¹³

The second stage, **authentication**, involves the assignation of a unique identifier that sorts individual identities in accordance with specific categories.¹⁴ These “sorting mechanisms” categorize a person in accordance with their sex, race, class, caste, nationality, and more.¹⁵

Finally, the **authorization** stage ensures that a person is eligible to use services via enrolment onto a database. This then serves as a central repository that stores an individual’s personal information.

9. Levy, David M. 2003. “Document and Libraries: A Sociotechnical Perspective.”, p. 29 – 31. In A. P. Bishop, N. A. Van House, and B. P. Buttenfield (Eds.), *Digital Library Use: Social Practice in Design and Evaluation*, 25 – 42. Digital Libraries and Electronic Publishing. Cambridge: MIT.

10. Briet, Suzanne. 2006. *What is Documentation?* Lanham: Scarecrow Press, and Poster, Mark. 2006. *Information Please: Culture and Politics in the Age of Digital Machines*. Durham: Duke University Press.

11. Yang, Jucheng et al. 2018. *Machine Learning and Biometrics*. London: InTech Open.

12. For a discussion of core concepts and processes relating to digital identity, see “Digital ID: Design and Uses” by the Center for Internet and Society. 2019.

13. Lawrance, Benjamin N., and Jacqueline Stevens. 2017. *Citizenship in Question: Evidentiary Birthright and Statelessness*. ed. Jacqueline Stevens Benjamin N. Lawrance. Durham and London: Duke University Press.

14. Caplan, Jane, and John Torpey (eds.). 2001. *Documenting Individual Identity: The Development of State Practices in the Modern World*. Princeton: Princeton University Press. Also see Torpey, John C. 2000. *The Invention of the Passport: Surveillance, Citizenship, and the State*. Cambridge: Cambridge University Press.

15. Bowker, Geoffrey, and Susan Leigh Star. 1999. *Sorting Things Out: Classification and Its Consequences*. Cambridge, MA: MIT Press.

Also see Suchmann, Lucille A. 2007. *Human-Machine Reconfigurations: Plans and Situated Actions*. Cambridge: Cambridge University Press.

GOVERNANCE THROUGH IDENTIFICATION: BIOPOWER AND BIOMETRICS

Digital identity plays a significant role in governance because it expands the reach of the state over the lives of individual citizens. Biometric regulation technologies “fix official identities to bodily, physiological, or behavioral traits, providing new ways for individuals to identify themselves, and also to be identified or tracked.”¹⁶

The French philosopher and social theorist Michel Foucault (1926–1984)¹⁷ first used the term biopower to analyze how states discipline, manage and exercise power over the lives of all people. Foucault argued that everyday life is organized via bureaucratic systems that set the conditions of subordination and therefore have the potential to limit a person’s autonomy.

The concept of biopower then is intimately connected to how a state cares for its citizens. Some scholars interpret welfare states as biopolitical because of the rules they make and the systems they implement to care for individuals.¹⁸ These systems do not always benefit people equally. Welfare, for example, functions in a way that prioritizes a set of claims to resources via solutions that work best for a select group of people. This means that, at times, some individuals do not meet welfare eligibility criteria and can therefore find they are excluded from receiving state benefits.¹⁹

STATE SURVEILLANCE, STATE CONTROL AND RIGHTS

Privacy International, an NGO that advocates for digital privacy rights, argues that ID systems have an in-built surveillance infrastructure that becomes an inseparable part of the identification process.²⁰ Many scholars have taken inspiration from Foucault to warn about the dangers of bolstering surveillance and the encroaching influence of digital technologies across all aspects of our lives.²¹ They argue that contemporary ID systems constitute a specific form of state control; one that disciplines the body of the individual citizen and regulates populations.

In the years leading up to Covid-19, researchers were already analyzing the impact of digital technologies on human rights, their associated freedoms and movements.²² From the rollout of large-scale nationwide vaccinations to ambitious track-and-trace programs, attempts to manage the individual via the creation of a digital self are having an impact on billions of people around the world. In real time, we are witnessing how digital identity is being touted as the solution in times of global crisis via programs that are amassing a wealth of data for governments, private businesses, and big tech companies.

16. p. 6 Kak, Amba (ed.). 2020. “Regulating Biometrics: Global Approaches and Urgent Questions.” *AI Now*.

17. Foucault, Michel. 1978. *The History of Sexuality Volume 1: An Introduction*. New York: Vintage. And Foucault. 1979. 2018. *The Birth of Biopolitics: Lectures at the College de France 1978–1979*. New York: Palgrave Macmillan.

18. Campbell, Timothy, and Adam Sitze. 2003. *Biopolitics: A Reader*. Duke University Press. And Hewitt, Martin. 1983. “Bio-Politics and Social Policy: Foucault’s Account of Welfare.” *Theory, Culture and Society* 2 (1): 67 - 84.

19. Eubanks, Virginia. 2018. *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*. New York: St. Martin’s Press.

20. Privacy International. 2020. *The UN’s Legal Identity Task Force: Opportunities and Risks*.

21. Ajana, Btihaj. 2013. *Governing Through Biometrics: The Biopolitics of Identity*. London: Palgrave Macmillan.

22. Taylor, Linnet. 2017. “What Is Data Justice? The Case for Connecting Digital Rights and Freedoms Globally.” *Big Data & Society* 4(2): 1–14.

DIGITAL IDENTITY AND CITIZENSHIP

One of the most contentious aspects of digital identity is how it links people's identities to their national status. Contemporary practices of legal identification have emerged from complex histories of shifting colonial borders and the movements of people.²³ This context matters specifically because there are some groups who have faced systematic discrimination based on their race, religion, national and/or ethnic origin.²⁴ The modernization of civil registries, and our move towards digital infrastructures, means that groups that in the past may have remained undetected are now becoming more visible and identifiable to the state.

The state itself is not a single, fixed entity but is experienced in a myriad of ways by citizens in their interactions with bureaucracies.²⁵ A person must incorporate various negotiations of power to make themselves seen.²⁶ Scholars argue that the largescale introduction of identification mechanisms is changing the very fabric of the traditional state-citizen relationship as negotiations can affect an individual's ability to participate in everyday exchanges, receive services, and ultimately enjoy their full status as a citizen. Subsequently, it can be very difficult for people who do not have their ID documents to prove their citizenship status and therefore unlock access to specific spaces and services.

23. Manby, Bronwen. 2016. "Identification in the Context of Forced Displacement." World Bank, Identification for Development Initiative. See also Weitzberg, Keren. 2020. "Biometrics, Race Making, and White Exceptionalism: The Controversy Over Universal Fingerprinting in Kenya." *Journal of African History* 61(1): 23–43.

24. In-depth studies of national contexts where digital identity is leading to exclusion include: Brinham, N. (2019) "Looking Beyond Invisibility: Rohingyas' Dangerous Encounters with Papers and Cards." *Tilburg Law Review* 24(2): 156–69.

Hayes de Kalaf, E. 2021. *Legal Identity, Race and Belonging in the Dominican Republic: From Citizen to Foreigner*. London: Anthem Series in Citizenship and National Identities.

25. Ajana, Btihaj. 2012. "Biometric Citizenship." *Citizenship Studies* 16(7): 851–70. See also Ajana, Btihaj. 2013. *Governing through Biometrics: The Biopolitics of Identity*. Sharma, Aradhana, and Akhil Gupta, eds. 2006. *The Anthropology of the State: A Reader*. Maiden: Blackwell.

26. Appadurai, Arjun. 2001. "Deep Democracy: Urban Governmentality and the Horizon of Politics." *Environment and Urbanization* 13(2): 23–43. See also Chatterjee, Partha. 2004. *The Politics of the Governed: Reflections on Popular Politics in Most of the World*. New York: Columbia University Press.

Corbridge, Stuart, Glyn Williams, Manoj Srivastava, and Rene Veron. 2005. *Seeing the State: Governance and Governmentality in India*. Cambridge: Cambridge University Press.

DIGITIZING THE POOR: FINANCIAL AND SOCIAL INCLUSION

Formal identification is considered “a prerequisite for development in the modern world.”²⁷ Advocates of digital identity argue it is fundamental to ensuring socioeconomic development specifically because of its efficiency in tracking, tracing and administering aid, state assistance and facilitating financial inclusion.²⁸ Today an integral component of the international development sector, digital identity is seen as the pathway to ensuring greater equity and justice for marginalized groups, women, undocumented migrants, refugees,²⁹ stateless populations, children, and others.

The international development sector has supported the global expansion of digital identity and embraced new technologies as an effective tool to achieve the 2030 Sustainable Development Goals via SDG Goal 16.9.³⁰ Although the SDGs initially prioritized the birth registrations of children,³¹ the ripple effects of this goal are impacting hundreds of millions of people around the world who have had to (re)register their details with the civil registry and/or interact with digital ID systems to record their biometric data.

The role of the international development sector in promulgating a digital identity for all has contributed to the introduction of more efficient national ID systems. This is seen as a big success particularly because these systems are “creat[ing] unparalleled visibility...[as] they provide transparency in governance, curb leakages in government spending, generate valuable insights for government policies, and ensure that every citizen is counted in every governance process.”³²

Increasingly, international development organizations are working with the private sector to coordinate the implementation of these large-scale digital identity systems. Empirical data on this is evidencing how effective identification can positively impact the lives of vulnerable people, such as refugees.³³ It is also showing how effective identification can be essential to ensuring social and economic progress.³⁴

Digital identity therefore can improve the delivery of services as it facilitates access to livelihood opportunities, boosts the economy and ensures that individuals can benefit from these resultant economic gains.³⁵

27. Gelb, Alan, and Julia Clark. 2013. “Identification for Development: The Biometrics Revolution.” Center for Global Development. Page 1.

28. Gelb, Alan, and Julia Clark. 2013. “Identification for Development: The Biometrics Revolution.” Center for Global Development. Gelb, Alan, and Anna Diofasi Metz. 2018. “Identification Revolution: Can Digital ID Be Harnessed for Development?” Center for Global Development.

29. Martin, Aaron, and Linnet Taylor. 2020. “Exclusion and Inclusion in Identification: Regulation, Displacement and Data Justice.” *Information Technology for Development* 27(1): 50–66.

30. See Privacy International. 2018. “The Sustainable Development Goals, Identity, and Privacy: Does Their Implementation Risk Human Rights?”

31. Cody, Claire. 2009. *Count Every Child: The Right to Birth Registration*.

32. p. viii Asian Development Bank. 2016. *Identity for Development in Asia and the Pacific*. Manila.

33. Madon, Shirin, and Emrys Schoemaker. 2021. “Digital Identity as a Platform for Improving Refugee Management.” *Information Systems Journal*. 31(6): 929–53.

34. Whitley, Edgar A., Uri Gal, and Annemette Kjaergaard. 2014. “Who Do You Think You Are? A Review of the Complex Interplay Between Information Systems, Identification, and Identity.” *European Journal of Information Systems* 23: 17–35.

35. A more expansive discussion of financial inclusion that centres the perspectives of various marginalized groups is available in Maurer, Bill, Smoki Musaraj, and Ivan V. Small. 2018. *Money at the Margins: Global Perspectives on Technology, Financial Inclusion, and Design*. New York: Berghahn Books.

See also White, Olivia et al. 2019. “Digital Identification: A Key to Inclusive Growth.” McKinsey Global Institute.

DISCRIMINATION, EXCLUSION, AND MARGINALIZATION

Technological failures of biometric identification are undeniably social in their consequences³⁶ and can directly impact the lives of the marginalized and their ability to access state services. Through in-built design failures, digital identity systems can generate and solidify biases against people rendered vulnerable by oppressive systems. This can include people who belong to minoritized religious, ethnic, gender, and caste groups, as well as the trans community, people with disabilities and the elderly.

One example of how digital systems can be used to discriminate is that of the Dutch childcare benefits scandal (the Toeslagenaffaire). People from immigrant backgrounds and/or low-income families were directly targeted through the creation of a shoddy machine-generated algorithm that falsely accused thousands of parents of committing fraud. As a result, Amnesty International called for governments to put in place frameworks that would prevent people from being racially profiled and wrongly mistreated by algorithmic decision-making systems.³⁷

State infrastructure has made it a challenge – if not impossible – for people with disabilities to access their digital identification³⁸ particularly if they are expected to travel a long distance on public transport to obtain their ID card. There are additional limitations with biometric identification systems that overwhelmingly rely on facial recognition technologies or fingerprints as a form of verification. People with facial disfigurements or physical disabilities have faced difficulties in providing biometric data in the form of iris scans or at the enrolment or verification stages. Furthermore, information on the workings of identification processes, including necessary documentation and other preparation that is necessary for procuring an ID card, is often inaccessible to people with disabilities.

For elderly populations, the implementation of digital identification systems may present challenges. This group can encounter difficulties when verifying their identity particularly as some people lack access to older forms of paper documentation, such as their original birth certificate or an out of date passport. Elderly people might also be unfamiliar with changes to identification systems and have to rely on other family members, such as their children, to help them navigate this new digital landscape. Homeless people or individuals with no fixed abode also tend to fall under the radar of the state. They can find they are becoming forgotten within a system that is increasingly relying upon individuals to prove their existence in the form of digital registrations.

36. Magnet, Shoshana Amielle. 2011. *When Biometrics Fail: Gender, Race, and the Technology of Identity*. Durham: Duke University Press.

37. Amnesty International. 2021. *Xenophobic Machines: Discrimination through unregulated use of Algorithms in the Dutch Childcare Benefits Scandal*. London: Amnesty International.

38. A discussion of some of the technical barriers that users with disabilities face in accessing digital identification systems can be found in: ten Brink, Ronna N., and Scollan, R. 2019. "Usability of Biometric Authentication Methods for Citizens with Disabilities." MITRE Technical Report. Stanton, B., Theofanos, M. F. and Sheppard, C. 2008. "A Study of Users with Visual Disabilities and a Fingerprint Process." National Institute of Standards and Technology (NIST).

U.S. Department of Commerce. Blanco-Gonzalo, R. et al. 2018. 'Biometrics: Accessibility Challenge or Opportunity?', PLoS One, 13(4).

EXCLUSION BY DESIGN?

The recent report “Exclusion by Design: How National ID systems make Social Protection Inaccessible to Vulnerable Populations”³⁹ notes that rather than lead to large-scale social and financial inclusion, digital identity systems still hold inherent biases and flaws. In this way, bureaucracies can exist as a form of structural violence that work against marginalized groups who may face additional vetting procedures to ensure they get access to the ‘right’ ID. This can create a significant financial burden, particularly in income-poor households. In this way, bureaucracies can exist as a form of structural violence that works against marginalized groups rather than serving their best interests.⁴⁰

In a clear example of the limitations of biometric ID systems across the humanitarian aid sector, the report names three cases of discrimination: in Kenya, Uganda, and India. In Kenya, Muslims and non-Muslims are treated differently, with Muslim applicants facing more questions and greater scrutiny and suspicion from state officials. These discriminatory vetting practices are particularly visible among Kenyans who are defined as ‘non-Indigenous’: Somali, Asian, Arab, Nubian, and other ethnic backgrounds.⁴¹ Even when born and raised in Kenya, a significant percentage of the population from these minoritized ethnic backgrounds has been unable to participate in government welfare schemes, such as cash transfer programs.⁴²

In Uganda, the mandatory introduction of biometrics has created a severe backlog in card applications and processing times, effectively blocking people from services. These systemic difficulties have led to a third of the population unable to obtain pharmaceutical care or to get an education.⁴³ This biometric ID system was rolled out under the assumption that it would rely on biometric technology, yet the “attempts to marry a documentary identification system...with a biometric identification system...[has resulted in] the worst of all worlds,” generating significant administrative complexities in the rollout of the project.⁴⁴

The case of India is perhaps the most well-known example of en masse technical exclusion in recent memory. The Aadhaar card is a biometric ID that is linked to basic services, including welfare payments and phone access. Over the past twelve years, several errors have been detected at each step of the Aadhaar process. These technological failures have had a significant social impact as tens of millions of people were not able to apply for the card, or later found themselves without the necessary biometric authentication to use it.⁴⁵ In an edited volume that attends to the case of India, contributors argue that Aadhaar has not made a noteworthy difference in welfare delivery, as was its initial intent.⁴⁶ Due to a range of technological failures, citizens most in need of welfare services have been unable to access them.

39. See Privacy International. 2021. “Exclusion by Design: How National ID systems make Social Protection Inaccessible to Vulnerable Populations”. London.

40. Gupta, Akhil. 2012. *Red Tape: Bureaucracy, Structural Violence, and Poverty in India*. Durham: Duke University Press.

41. Kohn, Sebastian. 2011. “Out in the Cold: Vetting for Nationality in Kenya.” Open Society Justice Initiative.

42. To learn more about this read Weitzberg, K. 2017. *We Do Not Have Borders: Greater Somalia and the Predicaments of Belonging in Kenya*. Ohio: Ohio University Press.

43. Center for Human Rights and Global Justice, Initiative for Social and Economic Rights and Unwanted Witness. 2021. *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*.

44. *Ibid*, p. 14

45. Chaudhuri, B. 2021. “Distant, Opaque and Seamful: Seeing the State Through the Workings of Aadhaar in India.” *Information Technology for Development* 27(1): 37–49.

Masiero, S. and Shakthi, S. 2020. “Grappling with Aadhaar: Biometrics, Social Identity and the Indian State.” *South Asia Multidisciplinary Academic Journal*. Unique Identification in India: Aadhaar, Biometrics and Technology-Mediated Identities. Singh, R. 2020. “‘The Living Dead’: Orphaning in Aadhaar-Enabled Distribution of Welfare Pensions in Rajasthan.” *PUBLIC Journal: Art Culture Ideas* 20(6): 92–104. Singh, P. 2019. “Aadhaar and Data Privacy: Biometric Identification and Anxieties of Recognition in India.” *Information, Communication and Society* 24(7): 978–93.

46. Khera, Reetika, ed. 2019. *Dissent on Aadhaar: Big Data Meets Big Brother*. New Delhi: Orient Blackswan.

These exclusionary practices have contributed to the undermining of citizens' rights and gravely affected democratic processes.⁴⁷ These examples form part of growing body of empirical research that is evidencing how states can weaponize ID systems to target specific groups and punish, erase and socially control 'undesirable' minorities living within their own populations.⁴⁸ This includes the case of the Rohingya people who have faced systemic and bureaucratic erasure via the use of ID systems that have enforced selective and targeted discrimination against this oppressed minority group.⁴⁹

The Center for Human Rights and Global Justice recently published 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."⁵⁰ In this controversial report, researchers traced how the World Bank and other international organizations promoted a form of "economic identity" via systems that are converting individuals into traceable forms of data. The report warns that "this new paradigm is cloaked in the language of human rights and inclusion... [yet has] been linked to severe and large-scale human rights violations."⁵¹

47. There is a wealth of emerging scholarship on the Aadhaar case. See for example: Anand, N. 2021. "New Principles for Governing Aadhaar: Improving Access and Inclusion, Privacy, Security, and Identity Management." *Journal of Science Policy & Governance*: 1–14. Breckenridge, K. (2019) "Lineaments of Biopower: The Bureaucratic and Technological Paradoxes of Aadhaar." *Journal of South Asian Studies* 42(3): 606–11.

Krishna, S. 2021. Krishna, Shyam. 2021. "Digital Identity, Datafication and Social Justice: Understanding Aadhaar Use among Informal Workers in South India." *Information Technology for Development* 27(1): 67–90.

48. Kingston, Lindsey N. 2021. "The Weaponisation of Citizenship: Punishment, Erasure, and Social Control." In *Statelessness, Governance, and the Problem of Citizenship*, eds. Tendayi Bloom and Lindsey N. Kingston. Manchester: Manchester University Press.

49. Institute on Statelessness and Inclusion. 2020. *Locked in and Locked out: The Impact of Digital Identity Systems on Rohingya Populations*. See also van Waas, Laura. 2015. "The Right to a Legal Identity or the Right to a Legal ID?" *European Network on Statelessness*.

50. p. 5 Center for Human Rights and Global Justice. 2022. *Paving a Digital Road to Hell? A Primer on the Role of the World Bank and Global Networks in Promoting Digital ID*. New York.

51. *Ibid.*, p. 8.

CITIZENSHIP-STRIPPING, STATELESSNESS AND ACCESS TO DOCUMENTATION

The use of digital identification to track, trace and target people raises serious questions about what it means to re-envision the boundaries of the state as well as the changing nature of state-citizen relations.⁵² As eligibility is central to the effective functioning of digital identity, an individual must hold the 'right' permissions to avoid being locked out from accessing services.

This poses a grave danger for stateless populations; people with no official form of identification or whose legal existence is challenged or refuted by some states.⁵³ This situation might be due to a lack of the required documentation, such as a valid birth certificate or identity card, but it can also occur because a state fails to recognize the validity of a person's existing documentation and/or the claims of an individual - or an entire community - to citizenship.

The case in the Caribbean of the Dominican Republic – which shares an island with its neighbor Haiti – illustrates how, with the support of international donor funding, the country facilitated the bureaucratic erasure of tens of thousands of Haitian-descended people.⁵⁴ The culmination of years of discriminatory and exclusionary practices against Dominican-born people of Haitian ancestry, in 2014 the authorities launched the country's first biometric ID card.⁵⁵

Changes to the collation of digital data affected thousands of people already registered as Dominicans within the civil registry who had been embroiled in a fraught battle with state officials to (re)obtain copies of their birth certificates, identity cards and passports due to their Haitian ancestry. The case highlights how policies supported by international stakeholders, particularly the World Bank, were promulgated under the guise of universal inclusion and social protection yet in parallel facilitated large-scale citizenship-stripping practices.

In the United Kingdom, a major scandal broke over the treatment of the "Windrush Generation". The controversy involved a group of Black Britons who had migrated from the Caribbean and, despite their status as "Citizens of the UK and Colonies" (CUKCs), were instead accused of settling and living in the country "illegally" decades after their arrival.⁵⁶ These actions resulted in the forced expulsion of elderly people of Caribbean heritage from the United Kingdom who were detained, threatened by the authorities and/or refused re-entry after travelling abroad.⁵⁷ While the British government was championing the use of digital identity to encourage inclusion and establish itself as a global leader in the overseas development sector,⁵⁸ at home it was enforcing draconian-style hostile environment policies that not only targeted immigrants but also had a devastating impact on documented citizens who already had every right to live and remain in the country.

52. Breckenridge, Keith. 2014. *Biometric State The Global Politics of Identification and Surveillance in South Africa, 1850 to the Present*. Cambridge: Cambridge University Press. Page 11. See also Breckenridge, Keith, and Simon Szreter, eds. 2012. *Registration and Recognition: Documenting the Person in World History*. Oxford: Oxford University Press.

53. Bloom, Tendayi, and Lindsey N. Kingston. 2021. *Statelessness, Governance, and the Problem of Citizenship*. Manchester: Manchester University Press.

54. Hayes de Kalaf, Eve. 2019. "Making Foreign: Legal Identity, Social Policy and the Contours of Belonging in the Contemporary Dominican Republic." In *Welfare and Social Protection in Contemporary Latin America*, ed. Gibrán Cruz-Martínez. London: Routledge, 101–17. Also see Hayes de Kalaf, Eve. 2021b. *Legal Identity, Race and Belonging in the Dominican Republic: From Citizen to Foreigner*. London: Anthem Press.

55. Hayes de Kalaf, Eve. 2023. "A New Expression of Dominicanidad: The Dominican ID Card, Technology and Race." In *Dominican Politics in the Twenty-First Century: Continuity and Change*, ed. Jiménez Polanco, J., and Ernesto Sagás. New York, London: Routledge.

56. Gentleman, Amelia. 2019. *The Windrush Betrayal: Exposing the Hostile Environment*. London: Guardian Faber Publishing.

See also de Noronha, Luke. 2020. *Deporting Black Britons: Portraits of Deportation to Jamaica*. Manchester: Manchester University Press.

57. Cox, J., & Hayes de Kalaf, E. 2022. At "tipping point": New report signals limited drive within the Home Office properly to address the Windrush scandal. *Institute of Commonwealth Studies*.

58. p. 10 DFID, UK Department for International Development. 2018. *Digital Strategy 2018-2020: Doing Development in a Digital World*. London. 11

LOOKING TOWARDS THE DIGITAL FUTURE

A growing body of scholarship is calling for more nuanced critique and analysis of digital identity systems particularly in the aid sector where problems with ID have been downplayed or overlooked. Under-registration and identification are often approached as a technical problem with a technological solution. There is nevertheless a human element to these problems and, as we have seen, these issues cannot always be solved via the creation of a new algorithm or the redesign of a failed computer system. Traditionally, excluded people may benefit from digital identity schemes but, equally, we should be sensitive to the potential risks to which some groups are exposed, including the significant financial, social, and discriminatory barriers they can face in obtaining their ID.

The organizers of a recent workshop, “Researching Digital Identity in Times of Crisis,” - held by the London-based Alan Turing Institute – called for a new research agenda on identification systems.⁵⁹ Highlighting the need for greater empirical research into how identity systems are experienced beyond the typically polarized positions of good/bad, inclusionary/exclusionary, Global North/Global South,⁶⁰ participants noted that researchers can overlook the interconnected ways in which digital identity systems speak to and interact with one another. They argued that we need to think beyond national identity programs to help us understand “how digital identity schemes are taking shape in ways that may be similar—but also profoundly different—across global divides of socio-economic privilege and marginalization (for example, by tracing flows and disparities in funding, infrastructure, political agendas and logics across international settings).”⁶¹

Digital identity is only set to become more important as we head rapidly towards the 2030 Sustainable Development Goals. We must consider then how we can achieve greater socioeconomic development while battling factors that exclude or disadvantage some from enjoying the full benefits of social and financial inclusion. As digital identity becomes increasingly prioritized and centralized within global governance, there is a real need to think seriously about the impact of large-scale ID systems on all people, everywhere. We should, of course, try to celebrate these successes and promote examples of good practice whenever feasible. Notwithstanding, to guarantee universal inclusion and real respect for human rights, we must also ensure that we identify and learn from the examples of bad practice, discrimination and exclusion that we are now seeing emerging in different contexts around the world.

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