

RIGHTS AND ETHICS IN BIOMETRIC POPULATION REGISTRATION

MAPPING THE LIMITS OF DIGITAL RECOGNITION
AND THE DRIVERS OF EXCLUSION

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The modernization of national population data systems, in the form of population registers, national identity systems, and civil registration systems, increasingly involves rapid digitization.¹ This modernization is often promoted as a means to increase inclusiveness of societies, particularly inclusion in the formal banking and finance system, and support key welfarist and social protection initiatives.² There are excellent initiatives occurring in many places. Yet, this growth in technology is also raising a host of ethical and rights issues which require careful thought and interdisciplinary exploration by ethicists, public health experts, human rights lawyers, population scientists, governance practitioners and political scientists, as well as technologists.³

Under the pressure of demographic changes and a powerful alliance of donors, technology firms, local banks and governments, many national governments have begun to adopt new technologies of identification linked to mobile finance systems. These projects are not all alike, but they are typically organised around the use of biometric identification tools aimed at adult populations. Influential models of digital identification include India's Aadhaar identification; the GhanaCard; Rwanda's single digital identity implementation; Kenya's Huduma Number; and South Africa's Home Affairs National Identification System. There are many more currently underway or under development.

These systems are shaped by the capacities and weaknesses of each state's and society's institutional and political history. Nigeria, for example, has long been attempting to build a biometric identity card system – bedevilled by administrative troubles and conflict between its increasingly powerful and prosperous banks and MTN (the South African mobile network operator). Ethiopia, with its long history of bitter conflict over communal recognition and rights, announced in 2022 that its new Fayda programme will adopt a pure version of Aadhaar's identification-without-citizenship model, coinciding with the issuing of a commercial network licence to Kenya-based Safaricom. Few of these infrastructures work smoothly, but they have already changed the basic features of many states and economies, and they have ambitions to do much more.

1 World Bank. (2016). World development report 2016: Digital dividends. <https://doi.org/10.1596/978-1-4648-0671-1>

2 Simon Szreter, The Right of Registration: Development, Identity Registration, and Social Security—A Historical Perspective, *World Development*, Volume 35, Issue 1, 2007, Pages 67-86;
Breckenridge, K. (2014). *Biometric state*. Cambridge University Press.

3 Beduschi A. Digital identity: Contemporary challenges for data protection, privacy and non-discrimination rights. *Big Data & Society*. July 2019. <https://doi:10.1177/2053951719855091>

The finance-oriented technologies of digital identification are often startling and promising, supporting new kinds of payments, automated decision making and much more systematic surveillance of financial transactions – but they also carry powerful new dangers. Some of the most experienced advocates of population science (Lehohla, van der Straaten) have argued that these new digital ID projects will actually weaken the infrastructures of civil registration and vital statistics (CRVS).⁴ Such an impact would have severe consequences – damaging the inclusiveness of population registration and legal identity systems for children and minors, poor and vulnerable subpopulations, and the sustainability of civil registration as a continuous and viable source of vital statistics. Yet the evidence for both kinds of claims is far from settled – and the most influential fora for digital ID always return to the importance of linking legal identity to birth registration and civil registration across the life-course.

In addition to the question of whether adult biometric IDs will strengthen or weaken CRVS systems, they prompt many other political, rights and ethical considerations. As the case of Cote d'Ivoire shows us, the new identity credentials can draw inflexible, unjust and permanent boundaries through existing communities that may undermine access and inclusiveness. They can also permanently encode older forms of tribal, ethnic or racial affiliation that fosters ongoing conflicts. The technologies often carry with them new problems of monopolisation and tender lock-in that may harm individuals and governments in the long run. They may encourage destructive forms of government overreach – well demonstrated by the Uganda government's announcements of plans to capture DNA from its citizens in 2025, and the Nigerian central bank's insistence on the abolition of large denomination notes to push its citizens towards more visible forms of mobile banking. Biometric identification systems have triggered disputes over access to and the reliability of election systems in Kenya and Nigeria. Perhaps the most serious risk is that biometric identification and tracking will lead to discrimination and the extinction of rights of privacy, association and movement. And, when joined with international plans to police migration, it may facilitate renewed forms of racialised and geographical oppression aimed at vulnerable populations

A key challenge for scholars and practitioners who work on and with population register systems is managing the promises of inclusion through digitized population data against the potential risks of systemic exclusion and discrimination against vulnerable subpopulations including denial of basic rights and essential services.⁵ Discussions are ongoing in many corners, yet, a major limitation of current efforts to explore and address these challenges is that such efforts are often limited by disciplinary boundaries.⁶ Discussions, and ultimately analyses, therefore lack the interdisciplinary approach needed to result in real change by simultaneously integrating perspectives from law, public policy, demography, and public health.

4 Straaten, Jaap van der. "Identification for Development It Is Not. 'Inclusive and Trusted Digital ID Can Unlock Opportunities for the World's Most Vulnerable'-A Review," November 30, 2020. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3742736#; "Interview with Pali Lehohla." African Statistical Newsletter, February 12, 2022. <https://ecastats.uneca.org/asn/en-us/Sections/News-and-events/Interview-with-a-former-prominent-chief-statistician-Dr-Pali-Lehohla>.

5 Davis, S. (2020). *The Uncounted: Politics of Data in Global Health* (Cambridge Studies in Law and Society). Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108649544>

Amiya Bhatia & Jacqueline Bhabha (2017) India's Aadhaar scheme and the promise of inclusive social protection, *Oxford Development Studies*, 45:1, 64-79, <https://doi.org/10.1080/13600818.2016.1263726>

6 Rao U. Response to 'The Aadhaar debate: Where are the sociologists?' *Contributions to Indian Sociology*. 2019;53(3):431-440. <https://doi.org/10.1177/0069966719861759>;

Khera R. The Aadhaar debate: Where are the sociologists? *Contributions to Indian Sociology*. 2018;52(3):336-342. <https://doi.org/10.1177/0069966718787029>

Despite strong interest and activity on the part of young scholars and activists in low- and middle-income countries, current global policy efforts do not sufficiently prioritize opportunities for them to play a significant role in shaping and scaling-up efforts in this area.⁷ This is a major weakness of current global debates, research and emerging practice. A new generation of researchers and practitioners, with an interdisciplinary perspective, appreciation of the role of institutions and concern for rights and justice, is desperately needed. Strengthening the inclusion of young researchers and practitioners from low-/middle-income countries is key to improving the quality, efficacy and sustainability of interdisciplinary efforts to address the challenges of digitized population data systems.

To advance scholarship and practice at the intersection of population register systems, ethics and human rights and to lift up the work of young scholars, the IUSSP, the Wits Institute for Social and Economic Research (WiSER, South Africa), the Initiative for Social and Economic Rights (ISER, Uganda) and the USC Institute on Inequalities on Global Health (USC IIGH, USA) have launched a year-long research collaboration and fellowship program. This initiative convenes interdisciplinary dialogues and facilitates policy-relevant research that cuts across disciplinary boundaries, integrates young scholars and practitioners and advances human rights considerations in the field of population register systems. The IUSSP is the largest and oldest professional global network of population scientists in the world, it is an independent organization that promotes open, scientific exchange on population and development issues; WiSER is the pre-eminent interdisciplinary research institute in the humanities and social sciences in South Africa, has a distinguished track record in training new generations of scholars and public thinkers and maintains strong linkages with local socio-economic rights litigation, advocacy and research organizations; ISER is a well-established human rights non-governmental organization that promotes effective understanding, implementation and realization of economic and social rights in Uganda; IIGH USC is a pan-university institute, with local and global reach, and a strong track record of advancing research, education and policy engagement to improve health policy and reduce health inequalities. This collaboration seeks to shift the role of international networks and institutions in the global North to better support strong, visible and authoritative research, advocacy and policy guidance from early-career research and practitioners in the global South.

This initiative is designed to nurture a new generation of scholars and practitioners via direct mentoring from senior scholars and experienced practitioners in the field, immersion into academic, policy and practitioner networks, debates and institutions, exposure and visibility through publications, and communication channels largely based in the Global South. It is also designed to support active collaboration between fellows themselves in addition to collaboration with and between IUSSP, WiSER, ISER and USC-IIGH. Our intent is also to host fellows who by working individually and collectively will challenge experienced practitioners, senior scholars and established systems to consider new perspectives, rethink established assumptions and question dominant paradigms for population register systems.

7 Networks of researchers examining these problems include the ANR-funded project into "The Social and Political Life of Identity documents in Africa - PIAF" directed by Richard Banegas and Severine Dalberto; Amanda Hammer's Certizens; the Ursula Rao's MPI project into "Techno-Optimism"; the Empires of the Digital Network organised by Marine al Dahdah and Mathieu Quets; and the Bhalisa Network. All of these projects trace their origins to the Identinet that was established by Jane Caplan and Eddy Higgs in 2008.

In the past, population scientists and demographers have reviewed the uses of population registers systems in historical settings (Szreter and Breckenridge, 2012), and have also retrospectively documented misuses of population data systems that have led to mass human rights abuses in the 20th century (Seltzer, 1998; Seltzer and Anderson, 2001).⁸ However, they have been less engaged in contemporary debates about rights protections in contemporary national identity systems that are increasingly underpinned by biometric information and linked to other administrative registers. This lack of engagement represents missed opportunities for contemporary debates to benefit from the experience and technical insights of population scientists and also for population scientists to keep abreast of these new developments in the field. This initiative seeks to facilitate stronger engagement by population scientists on these contemporary issues and support interdisciplinary collaboration with established scholars from other disciplines and early career researchers and practitioners.

This new initiative is multi-faceted. It

- (i) facilitates individual research projects of three IUSSP Population, Ethics and Human Rights Fellows,
- (ii) collectively produces interdisciplinary pedagogical materials that highlight ethics and human rights opportunities and challenges emerging from the modernization of population register systems; and
- (iii) shares essays and podcasts that highlight new research and debates from scholars and practitioners of population registers.

Regular updates are published on the [IUSSP Population, Ethics and Human Rights project site](#) providing updates on new activities, outputs and materials from this initiative. For further information about this initiative, please contact Paul Monet (monet@iussp.org) at the IUSSP Secretariat.

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8 Breckenridge, K., & Szreter, S. (2012). *Registration and recognition: Documenting the person in world history*. Oxford: Published for the British Academy by Oxford University Press;

Seltzer, William and Margo Anderson. 2001. "The Dark Side of Numbers: The Role of Population Data Systems in Human Rights Abuses." *Social Research* 68: 481-513;

Seltzer, William. 1998. "Population Statistics, the Holocaust, and the Nuremberg Trials." *Population and Development Review* 24(3): 511-552.

IUSSP INITIATIVE ON POPULATION REGISTERS, ETHICS AND HUMAN RIGHTS

This initiative is convened through the [IUSSP Scientific Panel on Population Registers, Ethics and Human Rights](#) (2022-2025). Its overall purpose is to infuse interdisciplinary perspectives, drawing on perspectives from law, history, economics, public policy, demography, and public health, to address the ethical and human rights challenges that are emerging as population register systems are modernized and digitized.

This project is jointly carried out by:

- the **International Union for the Scientific Study of Population (IUSSP)**
- the **Wits Institute for Social and Economic Research (WiSER, South Africa)**
- the **USC Institute on Inequalities in Global Health (IIGH, United States)**
- the **Initiative for Social and Economic Rights (ISER, Uganda)**

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