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UNESCO Chair in ICT for Development Royal Holloway, University of London

ICT4D BRIEFINGS

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Big data for anti-poverty policies

The idea of *datafication*, intended as rendering many non-quantified processes into data, has become ubiquitous in business intelligence. Mayer-Schonberger and Cukier (2013) refer to big data as "a revolution that will transform how we live, work and think". Given the pervasive nature of datafication, it makes sense to ask whether/how this can affect anti-poverty action and research on a global scale.

Since 2011, I have conducted multiple rounds of fieldwork, to monitor the evolution of the computerisation of anti-poverty programmes from back-end digitisation to biometric recognition of users. My interest in datafication sparked from the observation that data has become, over time, an integral part of the making of the nation's anti-poverty policy.

Anti-poverty programmes are often devised as safety nets to protect the poor and vulnerable against livelihood risks. These programmes range from food security to employment guarantees, and with the advent of the Internet and mobile technologies, they have already been pervaded by many diverse forms of digitisation. However, datafication of anti-poverty programmes is radically different from digitisation. Digitisation refers to the adoption of digitality in existing processes, whereas datafication is a process in which data become the basis for administering the programme. For example, this can be used to ascertain and assign entitlements such as food or cash to particular people on the basis of poverty status.

Examples of anti-poverty programme datafication abound worldwide. Cash transfer programmes across Africa are moving to mobile money, assigning entitlements on the basis of user data. Perhaps the most powerful example of this is that of India, where the Unique Identity Project, or *Aadhaar* (meaning "foundation"), proposes to collect the biometric data of all residents, storing them in a central database.

Dr Silvia Masiero, Lecturer in International Development at Loughborough University, is working on the use of digital technologies in anti-poverty policies and responses to humanitarian emergencies.

India's *Aadhaar* project is the biggest biometric project worldwide, and a good example of ICTs and datafication for development. Aadhaar provides a unique 12-digit number to those who enrol, capturing their fingerprints and iris scan. Its purpose is that of semplifying delivery of social services, enabling rapid identification of those entitled. Biometric details are linked to citizens' data, hence a fingerprint is enough to access subsidised foodgrains or other benefits. My research on Aadhaar reveals two important points about the datafication of anti-poverty programmes. First is their technical rationale, and second are the political consequences that the new data architecture produces.

Datafication does much more than streamlining existing anti-poverty programmes. Entrenched in social policies, it can deeply transform their inner architecture.

The technical rationale lies in fighting *exclusion* errors, which exclude entitled users from service provision, and *inclusion* errors, meaning inclusion of the non-entitled. Aadhaar's datafication discriminates the poor from the non-poor, so that a non-entitled citizen cannot receive social safety benefits. It also gives users an identity, so that poor citizens without documents can have access, though this effect is sometimes blocked by malfunctioning technology (Shagun & Aditi 2016).

The main finding of my research on Aadhaar, though, focuses on its usage in India's main food security system, and is that the programme has visible effects on the design of anti-poverty policies. Aadhaar has the function of transforming India's anti-poverty agenda, based on subsidies for the poor, into a system in which cash will be directly transferred to them. This embodies the Central Government's intention to do away with subsidies, substituing them with a free-market system based on bank accounts. As it has been designed, the move is hence likely to yield strong consequences on the wider development of the nation's anti-poverty policy.

Big data bring together a set of actors – from development managers to recipients – which needs to be made sense of as development becomes more and more data-based. In particular, datafication can do much more than streamlining existing anti-poverty programmes. Aadhaar in India, for example, is entrenched in social policies that can deeply transform the inner architecture of the social security system. As ICT4D researchers, in the study of such phenomena, it is hence important to ask if datafication is actually expanding poor people's entitlements, or if it generates ambiguous effects on their access to social safety schemes.