Aadhaar, Accessibility, and Ableism:
Gauging the Responsiveness of Public Services Framework towards PwDs

Soumya Singhal

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Commentary

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CONTEXT

Since its introduction in 2010, the Aadhaar card has served as the primary source of identification and the means to access public and welfare services — such as ration, KYC, bank accounts, etc. — provided by the government. Publicised as the most reliable authentication of someone's identity, the Aadhaar card is the most extensive identification mechanism in the world, accounting for biographic, physiological, and biometric data including fingerprints, facial scans, and iris scans. As of 2 June 2021, 99% of the adult Indian population or 1,293,517,381 people hold a registered Aadhaar number (Thales 2021).

This number includes Persons with Disabilities [PwD], meriting the question: how responsive is the current framework towards those who might find accessing the services mentioned above difficult. According to the 2011 Census, over 2.21% of the Indian population consists of PwDs, of which 8% have multiple disabilities (Ministry of Statistics and Programme Implementation 2021: 219, 226). The current biometric framework leaves a massive gap in addressing the issue of accessibility for people with multiple disabilities. With ten fingerprints and two retina scans as the sole characteristics meant for recording personalised data, those who suffer from multiple disabilities remain untouched by the Aadhaar framework, and by extension, the larger ambit of public services linked with the possession of an Aadhaar card. Moreover, obtaining a medical certificate affirming disability — that is mandated to be linked to one's Aadhaar number — is also a tedious process. Availing a medical certificate requires thorough examination, and the certificate must be renewed at prescribed intervals in consonance with the identified disability.

Figure 1: **Persons with Disability by Type of Disability**
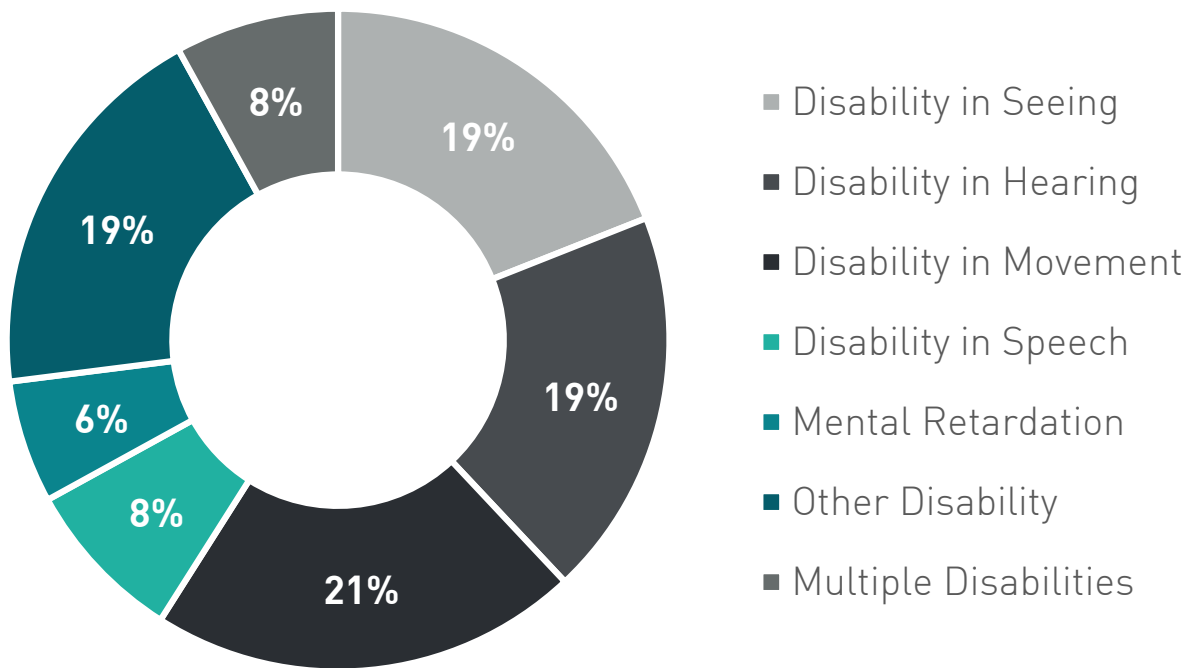
Source: Ministry of Statistics and Programme Implementation (2021)

This piece looks at ableism within the public services framework by critically analysing the use of biometric technology in recording data for Aadhaar cards and examining the website design of CoWin, the web portal for the registration of COVID-19 vaccination. The central analysis measures the degree of accessibility the public services framework ensures for PwD, the shortcomings within the Aadhaar and CoWin frameworks, and the possibility of remedying these pitfalls.

Shortcomings of Biometric Technology and CoWin Website Design

Clause 5 under the second chapter of the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act (2016) states that the "authority"[1] shall take special measures to provide Aadhaar numbers to persons with disabilities. The foremost step requests linking one's Aadhaar card to their Unique Disability ID [UDID] meant to "not only encourage transparency, efficiency and ease of delivering the government benefits to the person with disabilities, but also ensure uniformity" (Department of Empowerment of Persons with Disability n.d.). However, linking the Aadhaar card with one's UDID does not serve much purpose beyond escaping long government service queues, which is also subject to whether or not government officials on-site are trained for and aware of any special provisions for PwDs. Hence, the Aadhaar Act does not provide concrete solutions or provision of services to people with disabilities, especially with respect to the use of biometric technology.

Persons with problems related to dexterity find fingerprint scans tedious since many may not qualify for a medical certificate exempting them from the biometric process. The process is similarly inconvenient for anyone with minor physical disfigurements (Divya Goyal, personal communication, 5 June 2021). Persons with visual impairments who do not qualify for a retina scan exemption might face irritation and discomfort due to photosensitivity or may be unable to focus their eyes on a fixed spot (Ishika Agarwal, personal communication, 1 June 2021). Hence, PwDs might be required to undergo the process of recording biometric data repeatedly, the process more time-consuming for PwDs. Insensitivity on the part of data collectors and lack of trained personnel in government facilities further discourage PwDs from applying for an Aadhaar card. Possible repetition of the process also opens up a discussion about the applicant's economic capacity and the costs and discomforts of repeated travel.

The Aadhaar card and even the UDID are visual documents. The scan code provides copies that are not always readable by text-to-speech apps due to incompatibility with a character recognition software or general text reader. Alternatives are the mAadhaar[2] or E-Aadhaar that not only allow users to access soft copies of their IDs but also provide mechanisms for updating the information online. For instance, the DigiLocker app has evolved into an effective way of keeping a record of and accessing all official government documents in a single place. However, the use of verification mechanisms like visual captcha and one-time password [OTP] are often inaccessible. Moreover, the design of some government websites hinders the website's functionality for visually challenged persons because of the absence of audio captcha and inadequate labelling of characters, making them difficult to read using the software.

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[1] Here the deemed authority is the Unique Identification Authority of India, as established under sub-section (1) of section 11 of the Aadhaar Act.

[2] mAadhaar App is the official Aadhaar application launched by UIDAI to provide an interface for Aadhaar Number holders to carry their demographic data with them in their smartphones.

In the wake of the pandemic, the problems of inadequate government websites have become more apparent. Divya Goyal[3] (personal communication, 5 June 2021) notes that the tabulated data on the CoWin site has not been labelled well enough to allow for proper character recognition. This has especially been noticed when accessed via laptops or desktops. The CoWin website faces significant user traffic, making it difficult for some mobile phone users to access it. Such problems have brought into discussion the fact that persons with disabilities are often dependent on other non-disabled persons while availing public services. From travelling to online documentation, most services require assistance from non-disabled people. Making Aadhaar mandatory and linking other public services to Aadhaar has made the digital divide even more apparent. Few people have phones, and fewer have an internet connection. Many people are unaware of services like mAadhaar, E-Aadhaar, and DigiLocker (Mahesh Panicker[4], personal communication, 2 June 2021).

Recommendations

The case of Aadhaar has brought forth unaddressed problems resulting from the absence of clear and uniform guidelines for PwDs. Government initiatives to increase accessibility have only reached a limited audience. A MITRE (2019) report suggests a two-factor authentication process by combining the use of both dynamic positioning[5] biometrics like iris/ retina scan and facial recognition alongside non-dynamic positioning biometric mechanisms like fingerprints to make the process accessible to persons with disabilities. The argument here is that persons with a visual disability might find dynamic positioning mechanisms harder to access. Therefore, the report encourages the use of multiple options, which can act as a list of biometric alternatives that people can choose from (MITRE 2019; Thales 2021). In the aftermath of the Reserve Bank of India's [RBI] approval of authentication video-KYC in the banking sector, the possibility of using selfie-biometrics[6] has entered the lacuna of the general biometrics framework in India. While the Aadhaar framework has successfully implemented two-step authentication for non-disabled citizens, the expansion of biometric mechanisms and an element of choice could further transform the framework into an inclusive one.

With the inadequacies of a robust ten fingerprints and two retina scans as the sole mechanism for biometrics becoming apparent, newer technologies such as facial recognition or speech recognition must be incorporated into the current framework for special cases. The state must take full responsibility to ensure both the accessibility and privacy of its citizens. With Aadhaar being touted as a tool for both welfare and surveillance (Masiero and Shakthi 2020; Jacobsen 2012), the state will have to balance its dual role, such that the police state does not overpower the welfare state.

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[3] Divya Goyal is a blind woman who works as a researcher of inclusive education, gender, disability, and intersectional identities of disabled people.

[4] Dr Mahesh Panicker is an assistant professor at the department of Political Science, Lady Shri Ram College. He's also a member of the PwD community and specialises in disability studies.
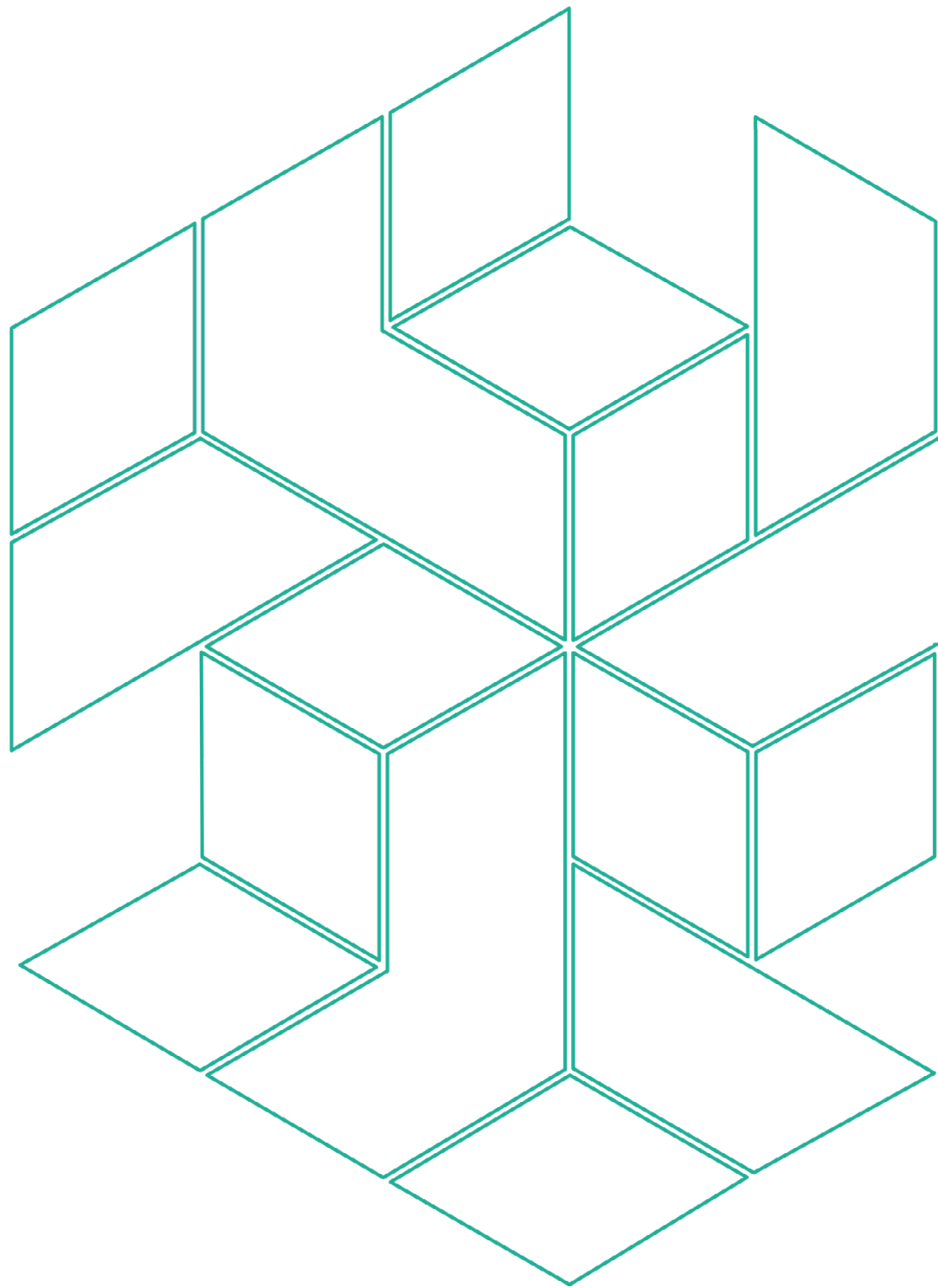
[5] These mechanisms require dynamic device positioning, such as holding a phone or laptop in a certain place in relation to your face to record data. These lack usability for people with no or limited vision or people with mental disabilities that make concentrating or fixating physiological features (Thales 2021).

[6] Either in a photo or video format.

To assist persons with disabilities, the Indian government had launched a nationwide helpline in March 2020, along with a comprehensible set of "Disability Inclusive Guidelines" by the Department of Empowerment of Persons with Disabilities that would help PwDs by bringing essential goods and services to their doorsteps (Narayanan 2020). A similar exercise can be undertaken in general to assist PwDs with updating their documentation online or for minor verification purposes. To help with website accessibility, an audio captcha should also be available for all government sites and apps while logging in. Nevertheless, there is the possibility of the misuse of such services, wherein non-disabled persons might avail resources allocated for PwDs without proper authentication mechanisms. Moreover, the constant need for assistance might put data privacy at risk. Lastly, increasing awareness beyond urban spaces has become extremely important. This would require addressing the technological divide between rural and urban settings, as well as higher-income groups and lower-income groups. A historical lack of representation of PwDs in policy design has led to this widespread omission. However, in a public services framework that aims at mass reach, the idea of accessibility must not be ableist.

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