A UPI MODEL FOR HEALTH

Relevant for: Developmental Issues | Topic: Health & Sanitation and related issues

The principles that have propelled two domestic digital payments' platforms also offer India an opportunity to show how the tracing of COVID-19 cases can be done at scale and with greater speed. The JAM (Jan Dhan-Aadhaar-Mobile) trinity for DBTs (Direct Benefit Transfers) and UPI (Unified Payments Interface) have made India a technology leader in money transfers. The former has lent efficiency to the transfer of funds to the needy. It was drafted into action recently to channel payments to the more vulnerable who need help in dealing with the adverse economic consequences of the lockdown. The latter is emerging as a transaction vehicle of choice for all retail payments. In March, 148 banks were on the UPI platform, helping process over 120 crore transactions worth over Rs 2 lakh crore.

The success of India's Aarogya Setu mobile application will depend on its widespread adoption. The app, like other similar products, relies on bluetooth technology to map and deconstruct the contact history of individuals who may have come in contact with potential carriers of the coronavirus. If two individuals are at the same place at the same time, their apps can exchange information (up to a maximum distance of about 15 feet) without the server knowing anything about it. Further, the app notifies users and authorities of individuals who are at risk. Some privacy safeguards have been put in place to ensure that individuals do not share personally identifiable information with each other but only with authorities — that too, in select cases. A confidence-building measure would be to release the code for public scrutiny with the aim of further bolstering privacy standards.

The distribution of the detection framework necessitates a rethink, beyond an app. Given the numbers we deal with, the government and its agencies have been going all out to push downloads. As Nandan Nilekani has underlined earlier, app downloads in India are perhaps the most expensive compared to any other developed or fast-developing nation, despite the falling cost of data, since Indian users pass potential downloads through several filters such as required storage space, the potential impact on battery and data usage. Given India's open internet, several publishers from across industries and geographies are vying for smartphone real estate. In such a situation, drawing attention to particular use-cases (howsoever urgent) is challenging.

An alternative strategy that we can pursue is delinking the technology we want to use for tracing (the backend) from the channels (the front end). A fine-tuned backend can be pushed to, and used by, publishers (other apps) who already have the reach. This is akin to the UPI being used by several banks and technology firms for payment. The government did build its frontend in the form of the BHIM (Bharat Interface for Money) app but mostly for signalling purposes. In the current context, the government can consider using its own app for tracing and for additional use-cases such as passes and approvals for movement when the lockdown is gradually eased out. It could even host other health-related features. Expanding its ambit and making it a conduit like JAM will likely increase the incentive for people to embrace it.

Another area where improvisations are called for is the tooling for tracking. While reports have indicated that the developers are using bluetooth for tracing and are also capturing GPS coordinates, both users and device manufacturers limit their usage of these technologies in favour of other optimisations. Users are concerned with both data and battery usage while device manufacturers kill background jobs even if the publishers have sought and secured permissions from users. These tendencies are pronounced on Android, the dominant mobile operating system in India. In such a scenario, developers ought to think about using other

techniques. For instance, using cell tower data and WiFi identifiers to bolster tracing efforts. This is especially important in a context where only a third of our population has smartphones and even fewer people have devices with bluetooth capability. Even the recently announced Google-Apple partnership may not have meaningful results in this setting.

With the potential ramifications of COVID-19's spread in India and across the globe, the nation's recent history of technological successes and a government committed to agile governance, the pandemic presents an opportunity for the country to show its people and the world how technology is a force of good.

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