Digital public infra can deliver global solutions

In the last few years, the world has been beset by many challenges occupying the focus of the G20: the pandemic, the war in Ukraine and its aftermath, the climate crisis, the sovereign debt crisis, and the recent cost of living crisis. Through this, our societies have been challenged to the core. However, there has been one silver lining on the horizon: the power of carefully designed Digital Public Infrastructure (DPI) to provide transformational solutions. The transformational impact of DPI is a defining theme of India's G20 Presidency.

Throughout history, it is a well-established regularity that economic development is the key to providing opportunities critical for tapping the potential of an economy. Typically, as countries develop, incomes rise and institutions strengthen to deliver change. This process takes time, often cycles of half-a-century or more. Today, in spite of considerable advances in digital technologies, a large swath of the population are not part of the formal financial system (about 1.4 billion people still remain unbanked); they are unable to reach the national market place quickly. This is because less than one-third of countries globally have a fast payments system, in spite of widespread international efforts to jump start the process; and, are unable to make tangible gains in finance, health and commerce through data empowerment as consumers have poor access to their data, no control over where it is stored, or how it is processed or sold.

India's experience has shown that effective and inclusiveDPIs – interoperable digital platforms that address a specific need such as identity, digital payments, and trusted data sharing but when put together create powerful stack("India Stack") of integrated applications—can help countries shorten the learning and adoption curve of the evolutionary processes. One rough estimate suggests that a well thought out DPI framework allowed India to achieve in a decade what it would have otherwise taken nearly 50 years had India relied on traditional growth processes.

The scale of challenge (and achievement) in India cannot be understated. In just a decade over 800 million people acquired a verifiable identity; over 80 percent of the population (600 million) had access to financial services with the single most massive jump in financial inclusion ever measured. India's United Payments Interface (UPI) is an example of how the regulator (e.g. the central bank) and the regulated (e.g. commercial banks) can together run a payment system that is voluntary, instant, costless, operates around the clock in a modular, interoperable fashion that enables participation by a variety of firms ranging from banks to boutique fintechs and BigTechs. It provides all the network benefits that big tech systems usually provide, but without the monopolistic outcomes. Today, the UPI is running at nearly 8 billion transactions a month.

India's example is not unique. More recently, the COVID pandemic has demonstrated the power of DPIs. Countries with effective DPIs could provide emergency fiscal transfers to hundreds of millions of people; their health systems could support and coordinate vaccine deployment across large populations; their education systems could offer platforms for learning during lockdowns; and, their digital commerce platforms augmented by digital payment systems could blunt the worst ravages of the lockdowns.

And finally, data. Technological developments over the last two decades have led to an explosion in the availability of data and the collection of large amounts of valuable consumer data – often referred to as "big data". In such a setting, it is important to be clear about who has control over these data, where they are stored, with whom and under what conditions they are shared. The privacy laws of most countries describe the set of principles that define how personal data are handled. However, despite these legal measures, consumers rarely know the benefitsof the data that pertain to them and are usually unable to access their data stored in proprietary silos in incompatible formats. Individuals need a way to take back control of their data. Given the enormity of data involved, the need to keep it secure, and with low transaction costs, any system that gives individuals the control of their data will need to be digital. India's Data Empowerment and Privacy Architecture offers a techno-legal solution that allows individuals to determine what can be done with their data by using a consent-based data-sharing system.

Looking ahead, G20 and other countries can form a coalition of the willing—countries that believe in the power of DPIs to deliver services and solutions at scale—both to share best practices and adoption of a common framework with respect to standards and regulations. Different countries may wish to adopt different models due, in part, to different starting points. However, capacity constraints in advanced and emerging countries should not preclude them from fully benefiting from these innovations. There in country technical support as well as a global strategy for the financing of DPIs will be essential. Whatever the particulars of the adopted DPI might be, the principles underlying the design of thesystem in India remain relevant.

India's motto for its G20 Presidency—One Earth, One Family, One Future—speaks of our interconnected destiny. It also speaks of India's aspirations for the world to leapfrog ahead.

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