**Workshop on
Democratic Accountability in the Digital Age
– From Challenges for Governability to a Roadmap for Governance**

14th to 15th November 2016, New Delhi

FAQs

Table of Contents

1. What is digitalization of governance?

Digitalization of governance refers to the strategic use of digital technologies (computers, the Internet and mobile phone) to re-design service delivery and citizen engagement processes, with the intention of enhancing the efficiency and effectiveness of government, and its interactions and transactions with citizens.

Policy makers usually cite some critical gains that they believe is possible out of digitalization.

Reduction of corruption in government offices: Traditionally, citizens had to submit their applications to the same departments/agencies where their requests would get processed. Historically, in our country, a culture of clientelism has prevailed. Front-office staff, local bureaucrats and the political elite oftentimes act as brokers to speed up application processing, in

return for favours. The digitalization of welfare processes can cut out the intermediary, opening a direct, unmediated, channel to citizens and breaking existing networks of corruption. The availability of digital traces of every transaction also helps check corruption.

Savings in time when accessing welfare services: Using web portals of government departments, citizens can apply for entitlements at the click of a mouse. Digitally-mediated service delivery through local kiosks also allows citizens ease of access to public information and entitlement processing. Mobile based alerts that provide periodic updates of application status can help citizens avoid running from pillar to post to find the status of their entitlement-request/grievance. These advantages are seen to bring 'good governance' to the citizen at her doorstep.

Citizen interaction with government: Citizens can voice opinions on a particular policy or communicate their grievances and even participate in providing solutions to local problems because digital platforms make communication across distance plausible, for nearly no cost.

In real life contexts, these perceived benefits tend to reflect a simplistic view. Firstly, reliable and quality connectivity (including voice and data) is not available to all, across the length and breadth of the country. Secondly, poor and marginalized people may not be able to afford gadgets and operate them in an informed way to access opportunities of connectivity. Technology also can be intimidating to many who have not had opportunities to acquire skills.

Mere availability of online services or possibilities to interact with government through digital platforms does not also mean social factors like manipulation by local elite can be wished away. In fact, what we see is a new class of middlemen who profit from exploiting citizens with very limited or no digital skills. Technology mediated citizen interactions can also limit the possibilities of collectivization, which is very important to democracy.

2. What is Big Data?

As the Internet and mobile phones become ubiquitous, digital traces or footprints - little bits of personal information of users – are left behind online, most often without the knowledge of users. Our online banking history, mobile call detail records, the history of our 'likes' and 'dislikes' on Facebook, the searches we have done on Google, the rides we have taken on Ola/ Uber, images captured by CCTV cameras in public places, billing data at the local supermarket – all of these bits and bytes scattered across cyber-space hold a key to our personal histories, and to our 'personalities'.

When these varied and seemingly unrelated data traces from various sources are collected and analyzed through special computer programs called algorithms[1], key patterns about the user's individual behaviour and the collective behaviour of communities emerge. This process is known as Big Data analysis.

The two critical features of Big Data are that:

a. Big Data lends itself to real-time analysis as it is continually being produced and is instantaneously stored through huge volumes of digital transactions across the world.

---

1   Algorithm refers to a *"process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer"*.

b. When individuals use digital devices, Big Data is produced passively. In the traditional methods of analysis based on data sets collected through scientific sampling to explore specific theoretical questions, the focus is on identifying causality (For e.g. While studying health status of households, the role of gender based discrimination in food consumption may be explored). In Big Data analysis, the focus is not on causation or theory, but on finding patterns within the data that reflect correlations. Such patterns may not reveal cause-effect trends.

Big Data analysis is used for:
– descriptive analysis of a particular situation (e.g. to identify high volume commuter routes in a city using geo-location data from mobile phones of urban residents)
– probabilistic analysis that builds on descriptive analysis of patterns to identify trends and make forecasts/ predictions (e.g. social media analysis at election time, to predict outcomes of polls).

It is important to recognize that trend analysis in Big Data can become a powerful influence on individual and social behaviour. To explain this with an example: When a person shops for books online through Amazon, s/he will be prompted to look at some other books. The algorithms of Amazon may not know anything about books or reading cultures. They simply identify patterns of online purchasing across customers to predict that if you like Book X you are likely to be interested in Book Y and Z. The huge data base Amazon has allows it to predict possible preferences. The same logic applies to Google's personalized search options, Facebook's individualized newsfeeds etc. When algorithms decide what an individual is supposed to like, look for or buy online, human judgment and social choices tend to get heavily influenced. Big Data based predictions can therefore manipulate human decisions in individual and social contexts. The danger is that over the long term, Big Data projections, and the biases hidden in them, may begin to 'dictate', rather than just predict, behaviour. Big Data can thus become the perfect instrument of social control.

3. What are some specific ways in which governments are using Big Data analysis in decision-making processes ?

The power of Big Data for public decision-making is acquiring great popularity. This is because policymakers feel that traditional statistical machineries are too slow in producing analytical insights about critical demographic and social behavioural trends. Governments find the possibilities for here-and-now data and timely decisions through Big Data analysis attractive. They feel that this keeps them connected to the pulse of their populations; and so, they can be proactive rather than reactive when framing public policy decisions and actions.

Governments are using Big Data analysis for many purposes, such as:
- analyzing trends in the uptake of health and education services based on data mining[2] of social media and government portals;
- mapping the risk of epidemics (for e.g. during the Ebola epidemic in West Africa, geo-location information was used to predict where people were headed);
- to build a citizen rating system to assign 'trustworthiness' scores to citizens based on their credit history, online purchase behaviour and social media activity. China has launched such an initiative, in partnership with Alibaba, the e-retail platform.
- getting inputs from citizens on policy priorities.

---

2   In computing, data mining is the term that is used to describe the process of examining pre-existing large databases from different perspectives, in order to generate fresh insights. Usually, computer programs are used for this.

4. What are some key issues/concerns that policymakers have to be mindful of when using Big Data in decision-making?

1. Big Data-based analysis cannot be used in isolation as a decision-making tool. This is because public policy decisions need to be based on multiple and complex considerations coming from public interest. Big Data can provide first level insights into social behavioural patterns, but cannot shed light on plausible 'cause-effect' explanations. It is not a substitute for a guided enquiry into the 'why' behind social problems, or for ethical deliberation on the advantages/disadvantages of various 'solutions' that are possible. There is also always the danger of hidden or deliberate biases in Big Data and its analytical output, depending on its source. While Big Data can throw light on 'what is', policy processes often depend also on 'what should be'. If policy making relies excessively on Big Data, ethical considerations can get short-changed in favour of 'fact based' and 'efficiency oriented' considerations.

Let us consider an example. Records of calls made to the emergency police control room can help in identifying neighbourhoods that report higher rates of crime. However, assigning patrol resources to neighbourhoods only on the basis of this data would be a mistake. Residents of lower middle class neighbourhoods may feel more reluctant to call the police than elite groups and so the data collected from mobile records may not reflect the real need for patrolling. Ensuring that the results of big data analysis are not dis-embedded from the contexts they originate in becomes important. Secondly, decisions on where resources should be allocated preferentially is a separate issue that needs a normative, and not a data-based, approach.

2. Big Data-based analysis may completely leave out the priorities of groups whose digital footprints are very scanty. Poor and marginalized populations whose Internet and mobile use is limited because of accessibility and affordability barriers are especially at risk of being overlooked. For example, when city governments crowd source[3] ideas and views, only those with smart phones and the knowhow to engage can participate. Decisions and resource allocations based on this is likely to leave out the poorest who are not on the data radar.

3. Probabilistic analysis for making predictions on Big Data sets is not neutral or free from bias. The mining of Big Data is done using complex mathematical formulae known as algorithms, and oftentimes they amplify existing social biases and inequalities in ways that are not evident even to their creators. For example, in countries like the USA, Big Data is used for predictive analysis by law enforcement agencies to make decisions to grant parole. Using information about education, friends' criminal records, results of psychometric tests, alcoholism in the family and so on, authorities assess offenders for the risk of re-offending. Civil rights groups have flagged that the attributes used by these tools are loaded against blacks – with the result that blacks are more likely to be assigned higher risk scores than white offenders.

---

3   Crowd-sourcing refers to the process by which an individual or an organization decides to solve a problem or complete a task by enlisting the help of unknown volunteers, over Internet or mobile-based platforms.

5. What has been the trajectory of digitalization of governance in India? Has it promoted democratic accountability?

5.1. The early days

India started systematically exploring the potential of digital technologies (particularly the Internet and mobile phones) for enhancing the efficiency of state-citizen interactions in the early 2000's. The term 'e-government' has been popularly used to describe the digitalization of public administration systems.

Initially, champions of e-government within different departments tried their hand at setting up small-scale district level pilots of e-service delivery kiosks. But they soon realized that these initiatives could neither be sustained nor scaled up without ensuring that manual ways of processing applications were re-engineered digitally. For example, if after receiving an e-request for service delivery from a kiosk, department officials were opening a file, printing the e-request out, and circulating the file physically between different offices for approvals at various stages, there would be little difference between the new system and the old way of physically filing applications in terms of efficiency gains. On the contrary, if the setting up of e-service delivery kiosks were backed by new processes within departments for digital processing of requests whereby different officers could log in from their respective offices, write comments, affix their digital signatures for approval etc., there would be huge gains in terms of inter-departmental efficiency. Also, such a digital platform for processing service requests could support new features such as auto-alerts of file status on citizen mobile number etc, making it more transparent than the old system.

To ensure a complete overhaul of existing manual systems of welfare service delivery, the government prepared a road-map for digitalization in 2006, which was called 'National E-governance Plan'. Its main objective was "*Make all Government services accessible to the common man in his locality through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realize the basic needs of the common man*". Towards this, the Plan laid out a detailed technical road map for the creation of state-wide area networks for connectivity, electronic service delivery gateways to enable virtual transactions between citizens and government departments and state data centres for the storage of digital data pertaining to welfare delivery. It is important to recognize that this plan only provided a blueprint for digitalizing existing manual systems; it did not engage strategically with the socio-political question of how the ICT opportunity in governance could be used in transformational ways, like for promoting citizen-inclusion or furthering citizen-rights.

Despite these obvious limitations, the National E-governance Plan did succeed in kick-starting some important initiatives in the digitalization of service delivery:

(a) The launch of the Common Service Centres scheme, a nation-wide effort to set up rural kiosks for public information and service delivery under a Public Private Partnership model, across all 2,50,000 panchayats of the country. The Common Service Centres were seen as integral to the successful roll-out of digitalized services, as they would serve as a window for connectivity and associated digital services to citizens in rural areas. It was also planned that these kiosks would sustain themselves by earning a commission on every citizen-state interaction for e-services they

facilitated, supplemented by income from providing DTP and other business services. For more details about this scheme and how it has fared in implementation, see Q9.

(b) The inception of the *Aadhaar*/Unique Identification Card that aimed at creating a biometric-enabled, identification mechanism covering all residents of the country, in order to enable fool-proof targeting of welfare services and prevention of identity-frauds in accessing schemes and services. For more details about progress towards this, see Q6.

The National E-governance Plan certainly succeeded in giving e-governance a huge push, but there were still many drawbacks in its implementation.

(a) It created isolated pockets of innovative digital services in some departments in a few states, but failed to bring about a nation-wide shift to digitalized service delivery. One major reason for this was that there were no clear time-lines and targets for switching over from manual to digital ways. Another was that progress towards creating a common platform for electronic service delivery was poor – there was too little emphasis on technical standards setting in the development of platforms and promoting data interoperability (meaning how to make data held by different agencies speak to each other).

(b) With basic connectivity continuing to be a problem in rural areas, the Common Services Centres were slow to take off. As a result, uptake of services among citizens was poor.

5.2 *Digital India*

To deal with the shortcomings of the National E-governance Plan, and to make a new blueprint for e-governance in the country, the *Digital India* programme was launched in July 2014. Unlike its predecessor that narrowly focused on just e-services, this brings together the three main components of e-government systems (service delivery, citizen uptake and participation, and connectivity architectures) under a single umbrella. It is important to recognize that some parts of *Digital India* are a continuation of older efforts started under the National E-governance Plan, while others are new initiatives. *Digital India* intends to serve as a strategic vision document that spells out what the end-goal of e-governance efforts should be – "*transforming India into a digitally empowered society and economy*".

Digital India focuses on three vision areas:

(1) Providing digital infrastructure as a core utility for every citizen, including:
– high speed Internet for all citizens, through the creation of a national broadband network.
– access to Common Service Centres (More details in Q9)
– 'cradle to grave' digital identity through the *Aadhaar* programme for reliable authentication in state-citizen transactions, which in turn can form the basis of a targeted nation-wide welfare delivery system (More details in Q6)
– providing all citizens with access to mobile phone and bank account for digital and financial inclusion.

(2) Ensuring services 'on demand', including:
– availability of services in real time from online and mobile platforms.

– seamless integration of services across different departments or jurisdictions.
– making financial transactions electronic and cashless.

(3)Digital empowerment of citizens, through measures such as
– promoting universal digital literacy
– building a digital portal for encouraging citizen participation in collaboratively determining policy priorities (the MyGOV portal)

For comprehensive information about *Digital India*, log on to
http://digitalindia.gov.in/content/vision-and-vision-areas

5.3 Digitalization and democratic accountability

Democratic accountability refers to the idea that citizens can hold their governments answerable for the protection and promotion of their rights – both civic-political liberties and socio-economic rights (such as right to food, right to livelihood, right to social security etc.); and the delivery of the welfare benefits they are entitled to, under the law of the land.

The enforcement of democratic accountability happens through the following mechanisms:

– Legislative and policy measures that check the powers of the executive wing of the government, in their dealings with citizens.
– Building governance cultures that are supportive of individual and collective action by citizens including voicing grievances, auditing delivery of welfare schemes, shaping public policy decisions etc.

When viewed from this standpoint, it becomes clear that digitalization of governance is much more than a technical exercise. Rather, it is a strategic attempt to deepen democracy. When we take stock of the key trends in digitalization of governance in India from this standpoint, the following concerns stand out.

(1) There has been inadequate attention to citizen entitlements to services. Institutional and technological anomalies in the transition to *Aadhaar*-enabled welfare service delivery continue to undermine citizen right to services, as discussed in detail in Q6. Measures to provide an easy and effective grievance redress process for citizens to voice their problems and difficulties in accessing digital welfare systems have not been comprehensively set up.

(2) Development of citizen monitoring systems have not been prioritized. It is true that for some schemes such as National Rural Employment Guarantee Scheme (NREGS) and the Public Distribution System (PDS), the digital opportunity for citizen monitoring has been explored. The digital MIS for supporting social audits under the NREGS, and the SMS alert system set up in some states to inform citizens about dispatch of trucks carrying food rations under the PDS have been noted for promoting transparency and effective service delivery. However, these are exceptions, and even in these systems, no attempt has been made to systematically build on these new ICT innovations and create new local practices for strengthening democratic accountability, country-wide.

(3) The MyGov portal that has been set up for citizen engagement has not been backed by any concrete, time-bound process of responding to citizen concerns. There are no legal guarantees nor policy guidelines that set standards on how government agencies should use the portal to engage in dialogues with citizens, and act upon the issues that emerge. As a result, it remains a loose space for public announcements, used by a small minority to share public opinion, and not geared to deliver citizens the 'right to be heard'. The portal fails to connect to the majority of the population and their issues and aspirations.

6. What is *Aadhaar*? What are the implications of its introduction in service delivery?

The *Aadhaar*/ Unique Identification Number project aims at creating a nation-wide identification system by assigning every resident of the country a unique 12-digit number that is bundled with his/her biometric and basic demographic information.

In specific, it includes the following information:

- Biometric: Ten fingerprints, two iris scans, facial photograph
- Demographic: Name, Date of Birth (verified) or Age (declared), Gender, Address, Mobile number (optional) and Email (optional)

The intent behind the *Aadhaar* project is the creation of a country-wide primary identification mechanism that can enable greater efficiency in the targeted delivery of welfare benefits, thereby enhancing effectiveness of service delivery systems. Here, it is important to recognize that *Aadhaar* is only an identity-authentication mechanism. Possessing an *Aadhaar* card is not a guarantee for receiving a welfare benefit and it is not proof of citizenship. For enrollment of all residents into this project and creation and maintenance of this identification database, the government created a new agency – the Unique Identification Authority of India (UIDAI).

At present, over 97% of the Indian population is enrolled on *Aadhaar* and there are two ways in which *Aadhaar* is being used in service delivery systems:

(1) Biometrically Authenticated Physical Uptake. What this means is that beneficiaries continue to physically collect benefits and/or subsidised goods as they do now, but after their identity has been authenticated through a biometric verification process that matches their fingerprint/ iris against the *Aadhaar* number they produce, to confirm that '*A is indeed A as mentioned in the Aadhaar database*'. This is the system that has been introduced for the delivery of food-grains through the PDS, in some states.

(2) Direct Benefit Transfers to *Aadhaar*-linked bank accounts of beneficiaries. The mechanism that the government uses to achieve this is called JAM, which stands for *Jan Dhan-Aadhaar*-Mobile Number. Under the *Jan Dhan Yojana*, upto two members of every household in the country are eligible for opening zero-balance bank accounts, linked to their *Aadhaar* card and mobile number. The idea is that subsidies/benefits can be transferred by departments/ agencies directly to these accounts, using *Aadhaar* as an identifier. This is the system that is being currently used for transfers of LPG subsidy.

There have been a number of exclusions from the welfare net in this transition.

(1) Errors in *Aadhaar* seeding of beneficiary databases at the department level have led to unfair denial of benefits. For e.g. old age pensions have been stopped because wrong *Aadhaar* numbers were entered during the digitalization of the pensions database. BPL families have lost out on entitlements due to errors in data entry whereby the *Aadhaar* number of one household is linked to the ration card of another.

(2) Failure of fingerprint authentication due to poor quality biometric technology being adopted at last-mile service points. For example, in Andhra Pradesh, failure analysis reports for Social Security Pensions (SSP) and the National Rural Employment Guarantee Act (NREGA) show that failures due to "*biometric mismatch*" have remained around 20% - i.e. one in every five fingerprint authentication fails. Similarly, in *Aadhaar* linkages in MGNREGS in Jharkhand, an UNDP study has found that only 4 per cent of the surveyed beneficiaries reported successful fingerprint authentication at the first attempt. On-ground surveys by the *Mazdoor Kisan Shakti Sanghathan* have revealed very high rates of failure in the biometric authentication system adopted in Rajasthan's PDS.

(3) The lack of preparedness for Direct Benefit Transfers, mainly because of the poor banking infrastructure in rural areas. Despite the *Jan Dhan Yojana*'s dedicated efforts to ease barriers for the rural poor in opening bank accounts, basic savings account penetration across the country is still very low. It is only about 46% on an average. A mere 27% of villages have a bank within 5 kilometres, and business correspondent networks are also very thin.

(4) The failure to institute a legislative/policy measure to ensure that no citizen is unfairly denied his/her benefit/entitlement due to such technical glitches and errors in the transition to *Aadhaar*-enabled service delivery. Clause 7 of the *Aadhaar* Act allows central and state governments the power to make *Aadhaar* identification mandatory for any subsidy/ service/ benefit funded by the Consolidated Fund of India, but fails to provide a clear instruction on the need for states to institute a back-up/ alternative provision in case of service delivery failures.

(5) The lack of an independent grievance redress mechanism for citizens to voice complaints relating to *Aadhaar*-enabled service delivery. The *Aadhaar* Act in its current form contains only a weak sub-section, Clause 23(2)(s), that permits the UIDAI to set up grievance redress mechanisms at the block level to address these issues, if it deems fit.

7. Why are some people saying that *Aadhaar* violates democratic accountability?

(1) The *Aadhaar* project was initiated without any parliamentary backing, even though such a major shift to a nation-wide database of biometric and demographic information in a country without robust privacy and data protection legislation required much more than a mere 'executive-level' decision. The *Aadhaar* Act was enacted, only after over 95% of the population was enrolled under the project. Even then, the *Aadhaar* Act was passed in Parliament, as a money bill[4]. The government adopted this route to overcome the lack of support for this legislation in the *Rajya Sabha* – as money bills need to be passed only in the *Lok Sabha* and the *Rajya Sabha* has no powers to insist on

---

4   A bill that concerns taxation or public spending.

amendments to such bills. Thus, *Aadhaar* was initiated and is being implemented without full oversight by people's representatives, and is hence a violation of political accountability.

(2) *Aadhaar* is not backed by a privacy statute or data protection legislation. Also, the *Aadhaar* Act does not place any limitations on who may use *Aadhaar* and for what purpose. These two factors working together create a high risk of state and corporate surveillance that violates citizens' right to privacy, as detailed below.

(a) Risk of state surveillance: The *Aadhaar* Act restricts access to demographic and biometric information stored on the UIDAI database, but because of two broad exceptions to this restriction, the threat of state surveillance remains.

- District judges can pass orders that authorize state agencies' access to *Aadhaar* data without any disclosure or discussion with the citizen affected, and without any avenue for appeal.
- In the interest of 'national security', any Joint Secretary authorized by the government can direct disclosure of information. These orders are reviewed only by a Committee comprising representatives from the executive, and there is no independent judicial oversight for such orders.
(b) Risk of corporate surveillance: The UIDAI has put out the programming interface for *Aadhaar* authentication in the public domain, and encouraged entrepreneurs to develop apps that use this platform to provide innovative solutions for identity-verification and background checks (especially for employee background check, crosschecking criminal records of applicants seeking informal employment etc.). The emergence of these corporatized solutions for citizen background checks such as TrustID and OnGrid on top of the *Aadhaar* platform unleashes pervasive, privatized surveillance that is not governed by any legislation!

(3) *Aadhaar* violates citizen guarantees to the welfare net, as discussed in Q6 above.

8.   I have heard that *Aadhaar* is creating a revolutionary financial architecture that will ensure the inclusion of the poor and the unbanked and lead to fool-proof implementation of direct benefit transfers. Is this true?

On top of the *Jan Dhan-Aadhaar*-mobile number mechanism for identity-verification and targeted delivery of cash transfers, the UIDAI, in partnership with the Controller of Certifying Authorities, Ministry of Electronics and Information Technology and National Payments Corporation of India, is seeking to build a new set of digital tools and services that can contribute to presence-less, paper-less and cashless financial transactions. This initiative has been termed '**India Stack'**. How exactly it revolutionizes financial transactions is described below:

(1) Individuals can open bank accounts linked to their *Aadhaar* number, without physical verification checks. The e-Know your Customer application enables the bank to do the background check of an applicant for an account, without his/her physical presence, thus enabling 'presence-less' banking.
(2) At the click of a mouse, money can be sent or received into bank accounts. With 'paper-less' transactions, banking becomes as easy as sending an email. New applications such as e-Signature and Unified Payments Interface have been introduced for this.

(3) Financial transactions become 'cash-less', with the *Aadhaar* Payments Bridge System. This facility, built by the National Payments Corporation of India, enables individuals to use their *Aadhaar* number as a financial address. What this means is that just like individuals could send postal money orders to addresses of their choosing, they can now send money to specific *Aadhaar* numbers.

The creators of India Stack consider it a 'disruptive' technology in financial services, meaning a technology that makes a break from the old ways to provide an innovative and accessible solution. In particular, they feel that India Stack has enormous opportunities for enabling India's poor and unbanked masses to enter the formal financial and credit sector. They feel that the 'presenceless, paperless and cashless' infrastructure created by India Stack cuts down the costs of financial transactions, and thus encourages the emergence of new financial intermediaries (called fintech companies) who can build financial services on top of the India Stack applications to target clients whose individual financial transactions are too small for the formal banking sector. Further, they feel that this infrastructure will also ensure fool-proof implementation of direct benefit transfers.

These claims must be examined against the following criticisms that experts have observed:
(1) Fintech companies are more interested in tapping into what is commonly referred to in economic terms as the 'Bottom of the Pyramid' – meaning, the disposable incomes of the poorest in the society – to provide micro-loans and micro-credit. It is not clear that such services will address financial inclusion. On the contrary, the experiences of unregulated microfinance in the country indicate cycles of indebtedness for the poorest.

(2) The *Aadhaar* Payments Bridge System built as part of India Stack m<u>akes audit of financial transactions virtually impossible</u>. This system records transactions only between different *Aadhaar* numbers and not between different bank accounts associated with the same *Aadhaar* number. Some experts have highlighted that this means individuals opening a number of bogus accounts for the same *Aadhaar* number and moving money across them can escape detection. More importantly, <u>the Aadhaar Payments Bridge does not distinguish financial transactions made as part of Direct Benefit Transfers, from other transactions</u>. As a result, any audit of Direct Benefit Transfers involving crores of rupees of public funding is completely impossible.

9. What are Common Service Centres?

The Common Service Centre scheme aims at setting up 2,50,000 last-mile service delivery kiosks across rural India through a public private partnership model that involves three parties:
- the State Designated Agency (SDA), the state government department in charge of the scheme,
- the Service Centre Agency (SCA), a private company selected by the SDA through a competitive bidding process to run service delivery centres based on a franchisee model, in one or more regions of the state,
- the Village Level Entrepreneurs (VLEs) managing the service delivery kiosks at the last-mile, selected and trained by the SCA.

The oversight of this system has been entrusted to CSC E-governance Services India Ltd., set up as a private company in which state governments and SCAs are key shareholders. The primary function of CSC E-governance Services India Ltd is to ensure the economic viability of the CSC eco-system as well as to effectively monitor its implementation.

VLEs and SCAs are supposed to break-even and earn revenues from the CSCs by delivering a mix of governmental services on which they earn a commission, and other private services.

The implementation of this scheme has been uneven, with CSCs doing better in some states than others, depending upon various factors such as the ability of the SDA to demand accountability from the SCA, readiness of service delivery gateways and quality of last-mile connectivity.

However, even in those states where the CSCs have taken off and are managing to financially break even, one key problem remains. The model accords primacy to the profitability of service delivery rather than inclusion. Therefore, the needs of poor and marginalized groups may not receive priority attention from the kiosk operator.

The CSC network could have taken the route of a public connectivity and public library network subsidized for the poorest. But its structure, with a private company at the helm, has driven its public function towards the logic of a new type of clientelism. In the old days, the middle-men were local. Today, the CSC network has become a sort of rural retail network for corporatized services. The recent controversy about the Kerala state government's decision to allow sale of Reliance Jio and Patanjali products through its Common Service Centres (locally known as *Akshaya centres*) is a pertinent example in this regard.

10. What are SMART Cities? Why are some people saying they will lead to social exclusion?

The SMART Cities Mission seeks to "*promote cities that provide core infrastructure and give a decent quality of life to their citizens, a clean and sustainable environment and application of 'SMART' Solutions*". The Mission understands 'SMART' Solutions to be those which utilize technology, information and data to improve urban infrastructure and services.

Towards this, the main strategy the Mission has adopted is to attract private investments for infrastructural redevelopment of select urban enclaves/ pockets of existing cities, and the creation of city-wide IT-based solutions for the management of parking, transport infrastructure, water and sanitation, street lighting and so on. The SMART Cities Guidelines mandate the creation of Special Purpose Vehicles (SPVs) for the implementation of every SMART City Project. The SPV is a private limited company incorporated under the Companies Act, in which the State/Union Territory and city government are promoters with equal shareholding. The Guidelines also allow for private partners to have an equity stake in the SPV, as long as the combined shareholding of the State/UT and city government are greater than that of the private partner.

This scheme has come under a lot of criticism from researchers and civil society actors.

Firstly, the scheme's thrust of re-developing pockets within cities rather than adopting a holistic city-wide approach to urban infrastructural challenges is rather limiting – as it ends up creating islands of good-quality infrastructure developed by private capital, without a systemic approach to city-wide infrastructural problems or investing in basic services for the urban poor.

Secondly, critical decision-making powers are proposed to be delegated from the municipality to the CEO of the SPV. This is seen as ushering in a worrisome corporatization of urban governance, which will by-pass traditional deliberative decision-making processes.

Finally, the new 'SMART' Solutions that are proposed are aimed at attracting turn-key technology-enabled solutions in critical urban planning areas, will only end up benefiting the expansion of multinational Internet companies by opening up urban governance as a new market. Experiments in other parts of the world also highlight another critical risk for India – the capture of public data by private providers who develop 'SMART' solutions for city governments, and the replacement of essential public services by privatized ones. For example, in the USA, the Department of Transportation has announced a SMART Cities Challenge for the creation of 'SMART' transport solutions through Public Private Partnerships. Sidewalks Labs, a subsidiary of the Google-group of companies that focuses on the design of transportation technology for cities, has demonstrated keen interest in this initiative. It has set up a platform that will serve as *"a marketplace for transportation, integrating payment systems as well as numerous transport options such as buses, taxis, Uber, Lyft, and Zipcar" and managing parking slots.* Some experts fear that in cities which choose to integrate this solution into their transport network, there may be a decimation of bus services as such a system is geared to promote private transport network companies such as Uber. Others have highlighted how the proposal requires demo cities to "give out subsidies and collect payment for all transport and parking services through Sidewalk Labs' systems", thus locking the city into a monopolistic, private arrangement. Once such companies take over a public function, governments are either unable to enforce affirmative policies (like special parking rates for the disabled) or have to pay these companies huge sums to offset their losses.

11. What is the approach of the Indian government to the use of Big Data in governance?

The Government of India has started exploring the use of Big Data for informing policy decisions. Recently, the National E-Governance Division announced that it is building a Rapid Assessment System that will enable individual departments to mine SMS feedback from citizens about services, to determine follow-up action. Similarly, efforts to mine citizen data on the MyGov platform and social media accounts for determining policy priorities in 19 key areas through Big Data analysis have also commenced.

Also, a number of new schemes and projects launched by the government involve the creation of Big Data based innovations. For example, we saw in Q11 applications based on the *Aadhaar* authentication platform for verification-check and background reference-check, such as, Trust ID and OnGrid. 'SMART' Solutions for transportation, parking and street lighting management are also envisaged under the SMART Cities Mission.

However, the government of India has not come out with any comprehensive policy guidelines for the governance of Big Data. As a result, some important questions pertaining to Big Data governance remain unaddressed, especially aspects such as:
(a) How do we ensure that citizens' right to privacy is not violated when using Big Data-based solutions for public problems?
(b) How can we prioritize public ownership and use of citizen data rather than make huge payments to private data companies?

(c) How do we regulate private arrangements in Big Data-based solutions?
(d) How can we safeguard citizens' right to avail of an explanation about decisions based on big data analysis?

More details on critical questions and key issues/concerns for data governance are available at
http://itforchange.net/mavc/democratic-accountability-in-the-digital-age/resources/

12. What do we mean by digital rights? Why is it important?

Digital rights may be described as the right that everybody has to access and use the Internet and information and communication technologies for furthering their right to information; freedom of opinion, expression and association; and the right to full participation in the benefits of the newly emerging digital economy and society.

There is overwhelming evidence in our everyday life of the critical importance of digital rights. Without access to the Internet and mobile phone, citizens are more likely to get excluded from digitalized service delivery systems. They may become more dependent on new middle men such as Common Service Centre operators or Business Correspondents of banks, and they also find themselves unable to track and monitor receipt of welfare benefits. They are also less likely to engage with new online spaces for public participation through which policy priorities are being shaped nowadays. Most importantly, they lose out on the opportunity that the Internet provides for communication, networking, cross-learning and collective organizing. Think of how time consuming and tardy it would be to coordinate a *dharna* without mobile phones; or put out calls for statements of support without any email or cell phones.

The capability to fully participate in civic-political life, and have a voice, is closely tied to Internet access. The Internet also becomes an important public resource equalizing opportunities. It is the enabler that also helps us claim economic and social citizenship. For example, by
 • expanding opportunities for decent work (searching for jobs on sites such as Babajobs.com, setting up a portal if you are a women's collective making artisanal products etc.);
 • supporting group formation, solidarity and action (using Facebook to connect to other citizens who are committed to preserving a city's dying lakes etc.);
 • allowing cultural expression and knowledge creation (writing a Wikipedia entry on the art-form that is part of your local heritage, or documenting indigenous cattle breeds, uploading Youtube videos to expand your audience if you are a folk performer and so on); and
 • creating a channel for claims-making and setting local agenda (using online public information, getting timely access to public services, engaging with local government etc.)

The developmental benefits of digital technologies and the Internet and their contribution to the gamut of rights – both civic-political liberties and socio-economic rights makes them foundational to full citizenship. The Census of India 2011 tells us that poor households in rural areas with very limited household budgets are choosing to spend it on mobiles before constructing toilets. What this means is that the poor recognize how the mobile phone is a lifeline to access government benefits, key socio-economic opportunities and to stay connected with household members and the extended community.

As all of us recognize, access to the Internet and digital technologies is only the first step in realizing the digital rights agenda. Unless access is backed by legal and institutional rights that guarantee citizens' ability to use digital communication networks without excessive or unreasonable constraints, it is pointless. This is especially important as we inhabit a world where both state and corporate actors are using the power of these networks for collecting and analyzing more and more data about citizens – for controlling the citizens and for market expansion (more details in Q2, Q3, Q6, Q7). Therefore, right to privacy, right to anonymous communication online and right to be informed when personal data is being re-used by state or corporate actors become crucial for citizen-freedoms. This has also been stressed by many global civil society organizations.

But there is another issue that often falls off the radar when talking about the conditions for meaningful use of digital communication networks. This is the prickly issue of the ownership and control of key media, communication and networking platforms created on top of the Internet and data generated through these. As those familiar with the community radio movement know, spectrum is actually free and unlimited but in an environment where licensing favours big commercial radio stations over small community radio stations, poor and marginalized groups have very limited control over how they can use radio to bring attention to their issues or make programmes of their choice. Similarly, the Internet, as a global public good, is designed to enable any computer in the world to connect to any other, but today, large portions of the Internet are dominated by powerful Internet companies who become the default managers of such connections, and consequently, the feudal lords controlling the outcomes of online interactions.

Google started off as an innovative and exciting idea in the early days of the Internet that would help users search for, and find, pages on topics/issues of their interest on the Internet, without having to remember the address of every website they came across. Just like you call the JustDial service to find addresses you do not know, Google helps you find websites on issues/services that are of interest to you, by ranking searches according to your location, search words and other such factors determining relevance of results. But the workings of the Google search algorithm are secret and no one knows how a page moves up or down in the page rankings. When they use Google, Internet users surrender their agency to trace information or make connections, following what is 'recommended' by Google through its algorithm. This is worrisome, especially considering the numerous cases where Google has been known to tamper with search rankings to suit its interest. What this also means is that Google search rankings can make or break any website and its ability to find an audience. Similarly, Amazon provides a great platform for sellers and buyers to find each other online, without traditional middlemen. But Amazon acts as a new middleman, charging hefty commissions that small retail traders may increasingly find it difficult to afford. To cite yet another example, Wikipedia is the single-point knowledge repository online, regarded as the global encyclopedia par excellence, catering to diverse knowledge needs of communities across the world. But its editorial policies have ended up privileging articles written from a Western standpoint, even in its local language entries. Internet companies are also entering into deals with telecom companies to make free content available on data plans. This can privilege some information over others on the Internet, giving the bigger content companies an unfair edge over others.

Civil society actors have to therefore understand digital rights as inseparably linked to the structures and architectures of the Internet and how digital corporations use social controls towards their capitalist interests. The unchecked monopoly power of big corporations on the Internet (like Facebook, Google, Twitter) needs appropriate regulation to protect and promote the potential of the Internet and digital technologies to further small-scale, people-led efforts. To give people their

digital rights, the governance of the Internet must enable the creation of alternative economic models, knowledge paradigms and data regimes where data and algorithms can be brought to the service of common good and social justice. But there is strong resistance to these concerns. The Internet evolved out of a project of the US defence department with contributions from computer technologists, most of whom consider 'regulation' as a bad word that will bring government interference and kill all innovation. This misplaced view has allowed the developed countries and their corporations to keep the Internet out of the purview of democratic, global governance. To save the Internet from becoming co-opted for corporate exploitation and state control, civil society actors must demand a democratic governance framework for digital technologies that promotes the digital rights of the most marginalized.

International policy discussions have furthered the discourse on digital rights. Some critical milestones in this area are summarized below.

A. Key idea - Internet is an enabler of rights, including the right to development		
Sl. No	Instrument/Policy Document	Key highlights
1.	Declaration of Principles, World Summit on the Information Society, 2003	• Everyone should be able to access and use Information and Communication Technologies to improve the quality of their life.
2.	Tunis Commitment, World Summit on the Information Society, 2005	• The digital divide must be bridged for the full achievement of economic, social and cultural development outcomes, particularly in developing countries. • Universal, ubiquitous, equitable and affordable access to ICTs must be promoted. Universal standards must be adhered to, so that people with disabilities are able to make full use of information technologies.
3.	Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, 2011	• Since Internet is an enabler of so many other rights, provision of Internet to every citizen should be the priority of the state. • On no grounds can Internet shut-downs be justified by states.
4.	Sustainable Development Goals, 2016	• Access to enabling technologies, especially information and communication technologies are critical for women's empowerment. • By 2020, citizens of least developed countries must be able to have access to affordable Internet.
5.	Resolution of the UN Human Rights Council on the promotion, protection and enjoyment of human rights on the Internet, 2016	• States must adopt a comprehensive human rights-based approach to the expansion and promotion of access to the Internet.

B. Key idea - All rights offline must extend online		
1.	Resolutions of the UN Human Rights Council on the promotion, protection and enjoyment of human rights on the Internet, 2012, 2014 and 2016	• Offline rights must be protected online, especially freedom of expression.
C. Key idea - Right to privacy in the digital age		
1.	UN General Assembly Resolution on the right to privacy in the digital age, 2013	• Privacy is essential to be able to realise the right to express oneself freely. • Unlawful and arbitrary surveillance of digital communication, and unlawful collection of personal data in online spaces violate the right to privacy.
2.	Report of the United Nations High Commissioner on human rights on the right to privacy in the digital age, 2014	• The onus is on the state to show that interference with the citizen's privacy through online surveillance is not unnecessary or arbitrary. • The infringement of the right to privacy in online spaces also has considerable effect on the ability to exercise other human rights such as opinion and expression, the freedom of peaceful assembly and association, the right to a family life and the right to health etc.
3.	Report of the Special Rapporteur on promotion and protection of the right to freedom of opinion and expression, 2015	• Encryption and anonymity in online communication provide the privacy and security necessary for the exercise of the right to freedom of opinion and expression in the digital age. To explain this more simply: the ability to send and receive messages online without revealing one's identity or geographic location, and with complete freedom from the fear of that communication being intercepted by third parties, is very important for free expression.
D. Key idea - Freedom from technology-mediated violence		
1.	57th Session of the Commission on the Status of Women, 2013	• Governments must develop appropriate response mechanisms to address violence against women on online platforms, including social media.
E. Key idea - Data Rights		
1.	Report of the French Digital Council on platform neutrality, 2014	• Online platforms (such as search engines, social media etc.) that mediate user interactions must be transparent about how they collect and use data.

2.	General Data Protection Regulation (GDPR) of the European Union, to come into effect in 2018	• Automated Big Data analysis that profiles individuals cannot be used if it leads to social or economic discrimination against them. Example: if the police uses Big Data analysis to profile individuals at 'high-risk' of reoffending, and this tool disproportionately selects individuals belonging to racial or ethnic minorities, it cannot be used in isolation to make the decision. • Citizens have the right to demand explanations about the specifics of Big Data-based decision-making by government. To put this differently, policy makers cannot take recourse to defenses like *'the machine/computer asked us to make this decision'*. The parameters that guide the decision-making software must be something that is visible to everyone.

13. What are some policy developments in India, in terms of furthering the digital rights agenda?

As far as guaranteeing Internet access to citizens is concerned, India has made some progress. The National Telecom Policy (2012) speaks of a right to broadband. However, implementation of this policy intent leaves a lot to be desired. The progress on creating a country-wide broadband backbone through the *Bharat* Broadband scheme has been abysmally slow. Also, the quality of connectivity for the majority is poor; and even benchmarking of broadband is lower than standards that other countries follow. Consider this: while the National Telecom Policy(2012) defines broadband as an Internet connection with upload and download speeds equal to, or greater than, 512 kilobits per second (kbps), this benchmark, according to the Federal Communications Commission of the US, is vastly higher; 25 mbps for downloads and 3 mbps for uploads, respectively.

More importantly, while countries like the US and many in Europe have used community-owned networks for reaching connectivity in difficult-to-service areas, India's *Bharat* Broadband prefers big private players even for the last mile. This policy blind spot may be the biggest reason holding back a real *'Digital India',* since back-haul connectivity has already been reached very close to most villages.

The Telecommunications Authority of India (TRAI) had left data services unregulated for a very long time. It started evincing interest in this area only a couple of years ago, when a whole new set of deals were being struck between Internet companies and telecom providers for the delivery of discounted or free content services, as part of certain mobile data pack offerings. For example, Facebook struck a deal with Reliance Communications for its 'Free Basics' website to be offered free of cost to those customers who had taken a mobile data plan from Reliance. TRAI took up this issue as it was concerned about the unhealthy anti-competitive tendencies that such arrangements can encourage. In February 2016, it banned all forms of differential pricing arrangements for content services that were based on exclusive arrangements between Internet and telecom companies. Currently, TRAI is in the midst of convening another public consultation on how best to provide free data services to make mobile Internet more affordable, without encouraging practices that create new content monopolies with huge market power.

With respect to framing supportive legislation and policy for guaranteeing meaningful use, India needs to make a lot more headway. Some directions in this regard include the following:

- The digital literacy efforts that have been initiated through the National Digital Literacy Mission need to move beyond a basic computer-skills training approach to actively investing in the development of citizen-capabilities for participating in the digital society. Equipping schools to become the hubs for new digital citizenship literacy processes is one possible strategic direction to explore.
- A free data allowance needs to be provided to all citizens through a subsidy model, just like free food rations under the PDS.
- *Bharat* Broadband should prioritise community-owned last mile networks, which can be managed by community groups or the local self government bodies.
- The broadband network being created country-wide through the *Bharat Broadband* project must be used to create public access centres run as local public institutions to reach information and services effectively to citizens.
- Initiatives to develop local language content online for furthering pedagogic and educational goals needs to be encouraged actively.
- Government schemes and services must be developed on technical platforms that will work with non-proprietary software and low bandwidth connections.

A well functioning democracy in current times needs a comprehensive digital rights framework. Brazil has adopted a 'Civil Rights Framework for the Internet'. We should have a similar framework, but extend it to cover social, economic and cultural rights as well. Such a law can enable society to recognize participation in digital spaces as non-negotiable for citizenship and ensure that all e-governance policies respect the inalienable human rights of individuals and communities in their design and implementation. A digital rights approach can also pave the way for discussing the structures and ownership of technology, and of data, which needs to be claimed as a key public resource.

14. Where does India stand with regard to Internet access?

In absolute numbers, India has one of the largest Internet user-bases in the world. It has also been widely recognized the site of a telecom revolution of sorts – especially because of the explosive growth of mobile phone adoption and use in the last decade. But mobile phone diffusion has not translated into widespread Internet access. According to Pew Data from April 2016, India is significantly behind most emerging economies with regard to Internet access at 22 per cent and smart phone ownership at only 17 per cent. To put this in context, across 21 countries covered by this study, the averages for Internet access and smart phone ownership were 54 and 37 per cent respectively.

Rural women are most likely to be excluded from Internet access. The National Sample Survey of India 2014 found a clear rural-urban divide in Internet access. The proportion of Indian households in which at least one member had access to the Internet was 16.1 per cent in rural areas and 48.7 per cent in urban areas. The Boston Consulting Group 2016 survey found indisputable evidence of a gender gap in access, with 98% rural and 79% urban Internet users being men.

A major barrier to Internet access is affordability. Though data costs are falling in India (with 1 GB data currently priced at less than 2% of average monthly income), one in five people are still unable to afford a basic 500 MB package to connect. What this means is that to ensure universal access to the Internet, a policy strategy of pushing prices down by increasing market competition may not be enough. The state may need to take dedicated efforts to guarantee Internet as a public good – adopting various measures to subsidise access, including public access centres, digital libraries for youth and universal data allowance similar to the PDS (see Q13 for more details).

Another critical barrier is the inability of users to meaningfully use the Internet to search information that is of relevance to them or connect to public services – because of the paucity of local language content and flawed design of most government websites. The government must do more to support civil society in developing online public information and knowledge archives in local languages. Design considerations in the development of web portals are critical to ensure that citizen experience online is easy, meaningful and beneficial.