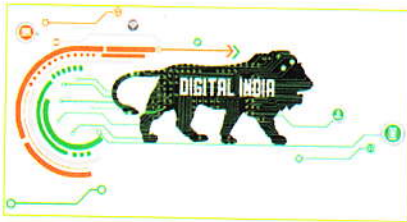


# Development Through Digitization

*Amitabh Kant*



*For years, India has been a complex nation, making it difficult for the common man to access government services. The rapid adoption of digital technology across sectors is making things easy and eliminating all forms of human intervention. This has a major impact on the efficiency and effectiveness of governance*

The world is getting digitized at a rapid pace in all aspects be it enterprises making products and selling them, humans transacting their daily lives and governments delivering social services to their citizens. The astronomical pace of digital data generation, dropping costs of data storage and compute infrastructure have enabled digitalisation at unprecedented levels which is now being termed as the 4<sup>th</sup> Industrial Revolution. Government of India and various State Governments have identified the transformational potential of Digital India and have started proactive adoption of these technologies.

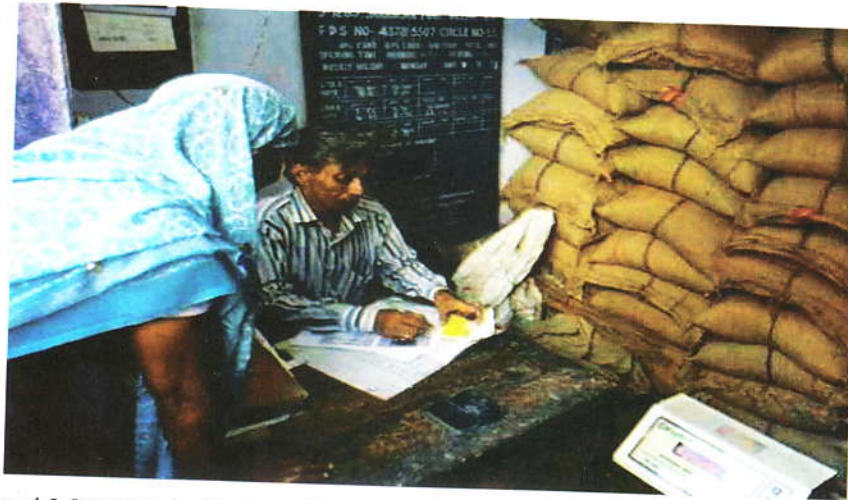
In the last few years, governance in India across sectors has been redefined through business process reengineering, technology and data analytics. Technology is reshaping the way government is designing and implementing programmes. The use of technology has brought in better systems, greater efficiency and is beginning to have a profound impact on governance.

The government launched several major and minor e-governance and digitalisation programmes which were all later brought into the fold of

“Digital India” programme. After the launch of 31 Mission Mode Projects under e-Kranti: National e-Governance Plan 2.0, due to growing adoption of new platforms such as “mobile” and “cloud”, a need was felt to reorient the Digital India Programme with the vision of “Transforming e-Governance for Transforming Governance”. All eGovernance projects now follow the key principles of e-Kranti namely ‘Transformation and not Translation’, ‘Integrated Services and not Individual Services’, ‘Government Process Reengineering (GPR) to be mandatory in every MMP’, ‘ICT Infrastructure on Demand’, ‘Cloud by Default’, ‘Mobile First’, ‘Fast Tracking Approvals’, ‘Mandating Standards and Protocols’, ‘Language Localization’, ‘National GIS (Geo-Spatial Information System)’, ‘Security and Electronic Data Preservation’.

India has combined the use of unique biometric identifiers and financial inclusion for effectiveness in social benefits and to reduce the vast number of illegitimate beneficiaries under welfare programmes. The Direct Benefit Transfer (DBT) has been implemented across 437 schemes, and helped save Rs 83,000 crore till date. Its implementation has led to 2.75 crore duplicate, fake or non-existent ration cards being deleted,

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and 3.85 crore duplicate and inactive consumers for liquefied petroleum gas (LPG) subsidy being eliminated.

### Leading the Way in Financial Inclusion

This is in stark contrast to how the governments worked before. During my tenure in Kerala, I got a unique opportunity to work in the fisheries sector. The task was to improve the livelihood of traditional fishermen. The sector was riddled with middlemen, and fishermen were getting only 25 per cent of the market price of fish.

The government formed self-help groups and provided them with new technology: fibreglass crafts, outboard motors and fishing nets to enhance their productivity. Beach-level auctions were introduced so that earnings from their daily catch could be deposited in their bank accounts. The biggest challenge was to get bank accounts opened for the fishermen. It took us 10 months of chasing physical banks and bank managers to get this done. The process of 'Know Your Customer' (KYC) was a nightmare.

Contrast this with my experience last month. I walked into a bank branch and opened my account using my biometric on a hand-held device in one minute flat. From 10 months to one minute has been the paradigm shift.

The JAM (Jan Dhan – Aadhaar - Mobile) trinity forms the basic data infrastructure for the India

Stack services consisting of e-KYC, eSign, instantaneous payments (UPI) and file storage (Digilocker). It has been the single largest factor for expansion of financial inclusion across the world. According to the Global Findex Report 2017 released by World Bank, a whopping 55 per cent of all bank accounts created during 2014-17 were opened in India. Through the Jan Dhan Yojana, which has led to opening of more than 31 crore new bank accounts so far since 2014, the proportion of Indian adults with bank accounts has increased from 53 per cent in 2014 to 80 per cent in 2017 now.

### Public Finance and Public Procurement going Digital

The Public Financial Management System (PFMS) has led to the creation

of a financial management platform for all plan schemes, a database of all recipient agencies, integration with core banking solution of banks, integration of state treasurers and tracking of fund flow to the lowest tier of implementation of plan schemes on real-time basis. PFMS has also led to just-in-time release of funds and efficient management in the use of funds, including ultimate utilisation. On March 28, Rs 72,000 cr was digitally transacted through the PFMS portal for 98 lakh transactions. This is a record of number of digital transactions processed in a single day.

In 2016, Government e-Marketplace (GeM) was launched for single-window online procurement of commonly used, small-value goods and services. The Central Public Procurement Portal facilitates e-procurement for larger-value items (Rs 0.2 million or higher). GeM enables direct purchase, e-bidding, reverse e-auctions, online registration facilities for government users, product sellers, and service providers and provides a market place for government purchase. As of April this year, there are already over 22000 government buyers, over 1 lakh sellers and service providers, 2.31 lakh listed products with cumulative transactions worth Rs. 6500 crore. 44 per cent of these procurements have been made from MSMEs.



### Pradhan Mantri Jan-Dhan Yojana (PMJDY)



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## Pioneers in Innovate Consumer Payments

Unified Payments Interface (UPI) and Bharat Bill Payment System (BBPS) have triggered a plethora of

A quick guide to learn everything about

**BHIM**



Bhart Interface For Money

private sector-innovated apps, which have significantly eased citizens' bill payments towards services provided by the government. BBPS has more than doubled the number of bills paid digitally from April 2017 when the pilot was launched. The value of bills paid on the platform has jumped by about 46 per cent during this period. According to a KPMG report, by the end of 2016, the size of bill payments market in India was more than Rs. 5.85 trillion, out of which 70 per cent of the bill payments were done using cash or cheque. It estimates the size of the bill payments market in India to reach Rs. 9.4 trillion by 2020.

Digital payment transactions have now become extremely simple, thanks to the Bharat Interface for Money (BHIM) UPI. We have seen the emergence of Google Tez and WhatsApp payment. In 2017-18, India has seen over a billion digital payment transactions in volume and over a trillion rupees in value. There will be

increased disruption with new players and new technologies. A report by Credit Suisse projects India's digital payments space to be USD 1 trillion by 2023.

## Digital Transformation

Digitalisation of collection of direct taxes has led to huge benefits. The Income Tax Department received 6.84 crore income tax returns in FY 17-18, a growth of 26 per cent and an additionality of more than one crore new tax returns. 98.5 per cent of those IT returns have been filed online.

The rollout of the goods and services tax (GST) has resulted in a 50 per cent increase in unique indirect taxpayers compared with the pre-GST system. This translates to a substantial 3.4 million new indirect taxpayers leading to a radical formalisation of the economy.

## Digital Monitoring

In the Pro-Active Governance and Timely Implementation (PRAGATI) programme, Prime Minister has used technology to cut across departmental silos and geographical boundaries to ensure speedy project implementation. He has dealt directly with senior central and state officials to monitor, review and evaluate progress of social sector schemes and infrastructure projects that were facing severe bottlenecks. Through video conferencing, the Prime Minister held 25 PRAGATI meetings and cleared over 227 projects worth more than Rs 10.5 lakh crore.

The recently proposed Ayushman Bharat scheme will digitally link primary and community health centres with district hospitals. Along with the Rs 5 lakh health insurance, which will cover 50 crore Indians, it will ensure healthcare through a paperless,

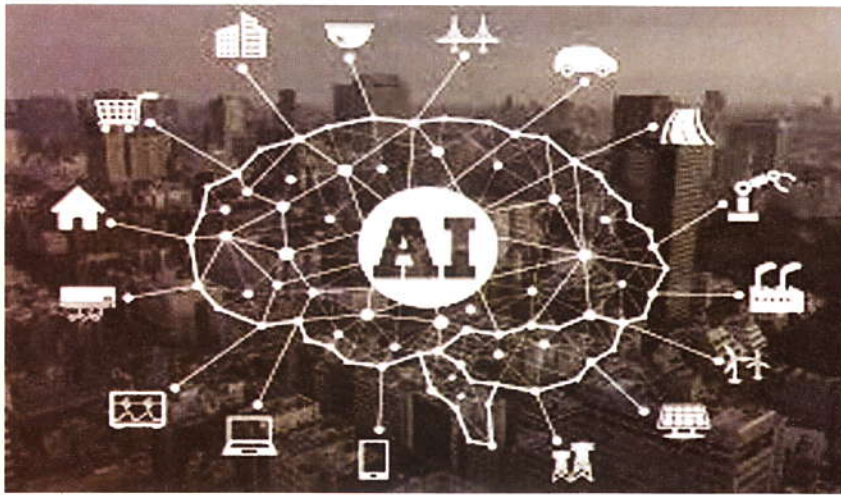
## A New Governance Paradigm Responsive Governance



**PRAGATI**  
Pro-Active Governance  
and Timely Implementation



**CPGRAMS**  
Centralised Public  
Grievance Redress and  
Monitoring System



cashless, portable scheme. The health stack linked to Aadhaar will be transformational.

### Impact of Frontier Technologies

Analysis by Accenture reveals that Artificial Intelligence (AI) has the potential to add US\$ 957 billion, or 15 per cent of current gross value added, to India's economy in 2035. India offers unique challenges that can be solved by application of AI. In addition, a recent Microsoft-International Data Corporation (IDC) study, 'Unlocking the Economic Impact of Digital Transformation in Asia Pacific', predicts that digital

transformation will add \$154 billion to India's GDP by 2021, increasing the growth rate by 1 per cent annually. In 2017, about 4 per cent of GDP was derived from digital products and services created directly through the use of technologies like Cloud, Internet of Things (IoT) and artificial intelligence (AI).

The government is exploring the use of new technologies and their potential adoption in government processes and schemes. NITI Aayog, mandated with the task of developing the National Programme on Artificial Intelligence, has been engaged in

discussion with ministries, academia, industry, researchers and startups. This is a qualitative effort to understand the technologies, their utility for the economy and governance, risks they pose and their future development trajectory. Further, NITI Aayog has also taken up implementation of these technologies for specific use cases, under national priority areas, to assess and demonstrate the benefits of the frontier technologies. These are termed as Proof-of-Concept (PoC) projects and are being tested in areas of precision agriculture using AI, land records on blockchain, assistive healthcare diagnostics using AI etc. The goal of these PoCs is to test the effectiveness of the technologies in solving the extant problems and demonstrating the feasibility of adopting frontier technologies in governance at a national scale.

For years, India has been a complex nation, making it difficult for the common man to access government services. The rapid adoption of digital technology across sectors is making things easy and eliminating all forms of human intervention. This has a major impact on the efficiency and effectiveness of governance. □

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### Top 30 Innovations of the Atal Tinkering Marathon Showcased

In an effort to identify India's best student innovators, Atal Tinkering Labs of the Atal Innovation Mission (AIM) of NITI Aayog, organized an Atal Tinkering Marathon, a six month long nationwide challenge across six different thematic areas, namely, clean energy, water resources, waste management, healthcare, smart mobility and agri-tech.

On the eve of the National Technology Day, ATL Marathon's Top 30 Innovations were showcased through a booklet compiling the work done by the children, the mentors, teachers and schools.

The Top 30 teams are being awarded with several prizes including a three month-long ATL Student Innovator Program (ATL SIP) in partnership with industry and start-up incubator. The goal of the Student innovator program is to test the innovations in the community. Students will be trained on business and entrepreneurship skills, including intellectual property, effective communication, making an elevator pitch and so on. Additionally, ATL schools will be offered a participation voucher to World Robotics Olympiad (WRO), which is a global innovation challenge.

From over 650 innovations received, top 30 innovations have been identified from 20 different States and Union territories from across India. Full details of which are available on the AIM website.



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