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Reshaping the Weberian State: An Institutional Analysis of Digital Bureaucracy and Administrative Reform in Modern India.

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Abstract

The Digital India Mission launched in 2015 is a paradigm change in Indian public administration, from a Weberian colonial-ordered bureaucracy to a modern, digitally equipped state. This paper will explore how the traditional governance of the "command and control" era is moving from that model to Digital-Era Governance (DEG) through the lens of service reintegration and citizen-centricity. At the core of this transformation are Digital Public Infrastructures (DPIs): Aadhaar, the biometric identity card, and Unified Payments Interface (UPI), which promotes financial inclusion. These instruments have revolutionized welfare delivery using Direct Benefit Transfers (DBT) to minimize leakages and corruption with the goal of making welfare delivery to intended beneficiaries; 100% delivery. Moreover, the study examines the internal administrative transition from a "rule-based" to a "role-based" paradigm, with the help of various initiatives such as Mission Karmayogi, which is working to transform the civil service into a future-ready workforce by focusing on functional and behavioral skills.

In spite of these developments, there are significant institutional obstacles to the transition. Formal barriers represented are outmoded laws, cumbersome processes, and substantial deficiencies in transportation and electricity infrastructure in remote areas. Informal barriers are as equally effective, with the existence of bureaucratic resistance towards change, and a legacy of "raja-praja" (king-subject) thinking that stifles the empowerment of citizens. Furthermore, there is a significant digital divide, with over 90% of the population having a low level of technical expertise and therefore not able to make good use of the Internet. The study finds the technology can effectively and powerfully facilitate SMART governance – Simple, Moral, Accountable, Responsive and Transparent – but for a responsive digital bureaucracy, a comprehensive approach is needed. The key to success lies in the alignment of technological innovation with a cultural transformation at the core of society, effective data protection mechanisms, and inclusive policies that address the linguistic and digital divide.

Keywords: Digital India, Public Administration, Institutional Theory, E-Governance, Digital Divide, Bureaucratic Reform

Introduction

The transition of the Indian state from a Weberian bureaucracy to a digital one is one of the most significant changes in the administrative history of the country. It is not just a

technology upgrade, but a new way of organizing the country's institutions, the principles that have underpinned it since the colonies. The Indian administrative structure traditionally has been hierarchical, with "Raaja" (king) at the top and "Praj" (subjects) at the bottom, and always aimed at "command and control. Although this was the stable model that made it possible to raise taxes and enforce laws, it generally meant that instructions were handed down but not received. With the dawn of the 21st century, a paradigm change was required towards "Good Governance" where the public administration was to steer society effectively, efficiently and equitably. The Digital India Mission is a major component of this change in the paradigm, which was launched on 1st July 2015, and aims at transforming the country into a digitally empowered society and knowledge economy.

In this transformation, the lens of Institutional Theory shows that there is a multi-layered field of formal and informal rules to navigate in order to reshape the state. The emergence of a strong Digital Public Infrastructure (DPI) is at the heart of formal institutional transformation. Formal institutional change is facilitated by the development of a robust Digital Public Infrastructure (DPI) with Aadhaar as its foundation. Aadhaar has transformed the process of verification and has helped in the introduction of Direct Benefit Transfer (DBT) scheme by giving the residents a unique biometric identity over 1.3 billion. Since inception, this system has kept the leakages and corruption to a minimum, with 100 per cent of the sanctioned funds reaching the intended beneficiaries directly into their bank accounts, a saving of more than ₹1.7 lakh crore to the government. In addition to these identity and payment layers, the ministries have been paperless thanks to internal administrative reforms like e-Office and e-Samiksha, which also enable real-time monitoring of policy implementation success, thereby enhancing bureaucratic accountability through the central executive.

But the transformation is fraught with institutional difficulties, stemming from a legacy of an administrative culture cemented over the past 100 years. Challenges that have been identified include outdated administrative regulations, multiple steps, and the continued digital divide, where rural areas tend to have less reliable internet access and power service. Less predictable are the informal norms, like a deep-seated aversion to change on the part of the bureaucracy, and which can worry about losing discretionary power, or job security if their work is automated. The feudalist mentality is still alive in administration-citizen relationships, that is, the latter remaining dependent rather than empowered in the relationship. Moreover, there is a massive digital literacy divide: over 90% of the population is thought to lack the technical skills necessary for the proper use of online platforms. To overcome these behavioral constraints, the government, in 2020, launched a programme to modernise thinking of civil servants and promote a "rule-based" to "role-based" approach to administration, called "Mission Karmayogi".

The effectiveness of these digital interventions is reflected in the case studies on the ground, such as the computerisation of Food Grain Supply Chain in Chhattisgarh. The state, with the help of three stage approach which involved computerization of operations, setting up of call

centres and engaging citizens through SMS alerts about truck dispatches, managed to recover ₹400 crore of loan and eradicate the corrupt intermediaries who used to divert nearly 25% of rations. In the same way, initiatives such as SWAGAT in Gujarat have used video conferencing to offer people immediate access to high-level decision-makers, which has helped to encourage district officials to act quickly on people's complaints. The use of new technology, such as Artificial Intelligence (AI), blockchain and the Internet of Things (IoT) is gaining traction in India, and what could be better than a more sensitive and anticipatory bureaucracy? In conclusion, Digital-Era Governance is a continuous evolution in institutional adaptation. Harmonizing technological innovation with the cultural and behavioural reforms that can be achieved at the base, India can achieve the democratic aspirations of its citizens and a transparent, accountable, and inclusive governance structure.

The field of public administration has experienced a major paradigm shift from the Weberian bureaucracy to New Public Management (NPM), and then onto Digital-Era Governance (DEG). Although both NPM and DEG have the goal of increasing the efficiency and effectiveness of government, they are based on two very different philosophies and structures. This essay discusses how the concept of Digital-Era Governance is distinctively different from New Public Management, in terms of service reintegration, holistic citizen services and the digitization of the state comprehensively.

New Public Management (NPM) developed in the late 20th century as an approach which implemented much of the logic of the market to change a slow and rigid traditional public bureaucracy. The principles of NPM were fragmentation (or "agencification"), competition and incentives. The idea was to create a competitive environment by creating smaller, independent government agencies, with the aim of achieving efficiency through market-like incentives. The discussion that followed in the Indian context was influenced by the ideas of efficiency, effectiveness and autonomy. This meant that many times departments and agencies operated in isolation, creating "silos" that made it difficult for citizens to navigate the administrative system.

Digital-Era Governance (DEG) is, by contrast, a shift towards reintegration of services. Whereas in NPM, the fragmentation was blamed on technology, DEG brings the government together in a technology driven environment. The "second wave" of DEG further is spurred by the social web and mobile technologies, which enable the government to engage its citizens in a much more intimate and interactive way. A case in point of this reintegration is the UMANG mobile application, which serves as a single platform for more than 1,600 government services and brings down departmental silos that often resulted in an NPM.

The other key distinction is the move from a "rule-based" to a "role-based" model. Whereas NPM continued to use the old bureaucracy to design its incentive systems, DEG reshapes the internal workings of State via digital public infrastructure (DPI). This reflects in modern India through the "Mission Karmayogi", a capacity building programme was launched in 2020 to bring about modernization of the mindset of civil servants. The overarching goal of

this program is to break the cycle of bureaucracy and replace it with a new one that is more digital and professional, in which the officials are oriented in the functional and behavioral capacities instead of the rules.

Besides, DEG is not like NPM on issues of transparencies and corruption. NPM tried to weaken corruption by competition, they tried to check it by supervision; DEG uses automated processes and digital audit trails to “rein in slackers” and remove discretionary power from middle-men. Programs such as Aadhaar-based Direct Benefit Transfers (DBT) have shown that it is possible to do so by removing intermediaries and directing 100% of sanctioned funds to those who need them.

DEG has demonstrated greater resilience when confronted with the modern crises, including COVID-19, as some parts of NPM were scaled down and digital governance tools scaled up. The transition to DEG has brought about a change in the approach and moved the state to become predictive and responsive by keeping a real-time monitoring of the policy implementation and responding to citizens' needs with a speed that the fragmented NPM model was unable to do.

Digital-Era Governance is about digitally empowered and 'whole of administration' governance, in contrast to New Public Management with its emphasis on 'market-driven', 'fragmented' and 'efficient' governance. DEG changes the paradigm from "rule-based" public administration to "role-based" and utilizes integrated platforms to offer a clear, accountable and inclusive approach to modern public administration.

Indian public administration is going through the process of changing from Rule-based to Role-based public administration. This change is part of the Digital India Mission and national digital transformation, moving beyond the colonial-era 'bureaucrat model' to a competency-based, citizen-oriented model. Rule based administration emphasizes the adherence to rules and the hierarchy, while role based administration emphasizes skills and abilities and the achievement of measurable results.

The rule-based administration with its Weberian roots from the British colonial past is well entrenched. The model is one of "command and control" that involves the formalisation of rules, the standardisation of procedures and the absence of personal relations in governance. In the past this gave rise to a "one-way traffic" relationship between government (the "raja" or king) and citizens (the "praja" or subject). This system was beneficial for conducting activities such as tax collection and maintaining law and order, but also led to inefficiency in terms of bureaucratic lethargy, red tape, and delays in procedures. In a rule-based world, the key performance measure for a civil servant is following the rules and sometimes, “devil-may-care” attitude towards service outcomes and citizens' satisfaction.

Role based administration is, on the other hand, a paradigm shift in the direction of Digital-Era Governance, which reflects the focus from the way a process is done to its outcome. The Framework of Roles, Activities, and Competencies (FRACs) is the model by which this is

operationalized, in which all civil service roles map to functional, behavioral and domain competencies. The goal is to create a "future ready" civil service capable of providing efficient public services with the desired attitude, skills, and knowledge. Instead of being passive adherents to rules, officials in a role-based system are encouraged to be proactive, creative, and professional.

This shift in India is through a capacity building mission named "Mission Karmayogi," which was initiated in 2020. This program emphasizes the transformation of administrative culture from an approach based on rules to an approach based on performance. This can be done on digital platforms, such as iGOT-Karmayogi, where learners can access continuous learning paths on the job to build their competencies depending on their respective roles in the government. Moreover, digital monitoring tools such as e-Samiksha are employed to monitor the progress of policy work in real-time, effectively "reining in slackers" and helping to focus on accountability and measurement.

Where the two models differ is in their approach to administration. Rule-based administration is much more stable, but it tends to lack responsiveness. With the support of digital public infrastructure, role-based administration aims to strengthen the state's capacity, by looking at the specific capacities available in the workforce. It is in this spirit that the Indian administrative system seeks to unite technological innovation with such a change in the bureaucratic mindset to work towards a more transparent, accountable, and responsive governance framework, which can then address the democratic aspirations of its citizens.

The transition from a traditional public administration "command and control" model to a "citizen-centric" one is increasingly supported by digital means in the context of modern public administration. Social media has become an integral part of the new era, and it is playing an important part in reshaping the relationship between the state and its citizens. In the context of the Digital India Mission, social media serves as a platform that promotes transparency, encourages participation, and empowers citizens to actively engage in governance.

Social media is one of the most important functions is to provide two-way avenues for communication. Social media platforms enable real-time interactions, as opposed to the one way flow of information found in traditional government websites. The "Samvad" initiative on the social media platform Twitter allows the public to know about Government's activities via tweets and SMS, which is information sharing and empowers the people. This instant connectivity makes government institutions more responsive to the needs and concerns of the public in an instant.

In addition, there is a social media dimension of a 'networked public sphere' that allows citizens to co-create public space and to affect policy outcomes. By using these platforms, governments can solicit feedback, gather input on policy matters, and collaborate with citizens in co-creating public services and solutions. The shift is meant to break the "raja-

praja" (king-subject) mentality with a new paradigm, one that provides for citizens to express their wishes and have them adopted as a determinant of administrative reform.

Theoretically, digital platforms such as social media have a crucial role in the creation of Social Capital. They develop social relationships and networks that support community development, trust and community action. In the public administration context it means more trust in the public administration, because transparency and communication via social channels are methods of openness and anti-corruption.

But there are some challenges to social media's role in citizen engagement. There is a significant "digital divide" that keeps the rural and marginalized communities from engaging with the online conversation, both in terms of infrastructure and in terms of their digital literacy. Also, there may be a bias in reliance on online data, as people who are more tech-savvy or vocal might be overrepresented, skewing the government's view of the overall public opinion. Data privacy and cyber security are also significant challenges that can undermine public trust in such digital interactions.

social media have become a revolutionary force in citizen engagement – making governance more transparent, interactive and participative. It has tremendous potential to close the gap between the government and the people but its full use will need to overcome institutional hurdles and make digital inclusive. Technology and administration can be merged to propel social media as a tool of democratic empowerment into the future.

In the 21st century, the relationship between taxation and governance has turned from a "command and control" role to one of becoming a major driver of administrative reform. In the past the Government of India was only responsible for collecting taxes and maintaining law and order, what is called a "one-way traffic" model where the Government being the "raja" (king) and the citizens as the "praja" (subjects). But, with the introduction of Good Governance, citizens are now pushing for excellence in service delivery and value for the money they pay in taxes. Taxation matters have become a major part of the larger governance agendas of pressure, which require a move towards transparency, efficiency and citizen-centricity.

The use of digital technology has been a key enabler in addressing taxation-related issues and thereby enabling a process of reform. The roots of e-governance in India can be traced back to the 1970s when it became evident that leveraging information technology to address data-intensive problems like tax administration were a key priority. In today's times, some initiatives like Goods and Services Tax Network (GSTN) have changed the scenario by providing a single technological platform for a national indirect tax regime. It allows for online registration, return filing, and payment, streamlining the administrative process and minimizing compliance requirements and increasing transparency. The GSTN is a digital solution that brings together multiple state and central tax systems to create a one nation, one tax, one market model, a vision that will offer opportunities for innovation in governance.

Moreover, the use of the Integrated Taxpayer Data Management System (ITDMS) demonstrates the potential for institutional transformation when taxation problems are addressed. Prior to this reform, there were data silos like PAN, TDS, bank accounting systems, etc., which were not seamlessly integrated for tax administration. ITDMS proved to be a tool that enabled the government to mine all the information it had on individuals to create a "360-degree transaction profile," which increased the chances of catching tax cheats and encouraged people to pay their taxes on time. This transition has been complemented by the incorporation of artificial intelligence (AI) and big data analytics, which give policymakers and auditors more insights to guide decision-making. The impact of these tax-related reforms is seen in New York City, where similar tax management systems are able to audit fraudulent companies 12 times more efficiently.

But despite these achievements, taxation is still a huge hurdle in the way of achieving the groundings of some initiatives like the Digital India Mission. According to research, "taxation issues" is one of the ongoing problems faced in implementing it, along with digital illiteracy, and inter-departmental coordination problems. These challenges can stem from institutional inefficiencies, including duplication of administrative procedures and the lack of interoperability between different government databases. To counter them, reforms have to focus on reintegrating services and on evolving the mindset from a 'rule-based' to a 'role-based mentality' by programmes such as Mission Karmayogi.

Finally, the tax issue is not a fiscal problem but a factor that is responsible for the modernisation of the state. Tax reforms have made it imperative for government agencies to move away from archaic 'command and control' governance mechanisms and towards Digital-Era Governance, from the early computerization of the 1970s to the sophisticated systems of today, powered by artificial intelligence. The state has shifted its governance towards transparency and accountability through the implementation of various initiatives such as GSTN and ITDMS. However, if this pace is to be continued, policymakers need to remain vigilant in tackling infrastructural and legal challenges that taxation issues highlight and make the administrative system more responsive and inclusive.

The use of technology in public administration has transformed the nature of the relationship between citizens and the state from a 'command and control' culture to a 'SMART governance' style of governance which is Simple, Moral, Accountable, Responsive, and Transparent. Traditionally, the Indian administrative system was biased towards the 'king-subject' mentality, with information limited to the confines of government documents, and interactions one sided with conveyance of instructions. In today's world, technology will be a means to transparency that will remove the old systems of opacity and replace them with open data programmes, live monitoring and delivery systems that involve citizens as active stakeholders.

Technologies that enable transparency are basic in making government records and processes digital. Such programs as the e-Office Mission Mode Project enable organizations to move

away from paper-based processes and into an electronic environment to better manage and track work and ensure accountability. Administrative processes that are digitized result in digital audit trails and thus limit the room for discretion and the "red tape" that can foster corruption. Moreover, citizens can utilize online portals like the RTI Online platform and open data repositories to seek information and challenge government information on activities, budget and expenditure in real time.

Real-time monitoring tools have also embedded transparency in the internal bureaucracy. Digital dashboards, such as e-Samiksha and DARPAN, are available on platforms to track policy implementation and government projects. These systems automatically push for updates from stakeholders and status reports in prioritized colors so that pendency and delays are known to the top leadership including the Prime Minister's Office. The data technologies are creating the "visible performance" of government departments, and they put the "slackers" in check and help create a culture of outcome-orientation.

One of the most prominent achievements of the digital transformation has been financial transparency. Digital Public Infrastructure (DPI) has transformed the delivery of welfare services with the launch of Aadhaar biometric identity system and Unified Payments Interface (UPI). The government can do this with Direct Benefit Transfers (DBT) which eliminates the possibility of "corrupt intermediaries" and guarantees that 100% of the sanctioned money goes straight to the intended recipient's bank account. This has significantly minimised the occurrence of 'leakages' and theft in the supply chain worth of more than ₹1.7 lakh crore since the inception. The Food Grain Supply Chain computerisation initiative in Chhattisgarh is a good example, as an SMS alert system informs people about the dispatch of trucks and enables them to keep track of the diversion of rations.

Last but not least, technology can help to promote transparency by improving grievance redressal and citizen engagement. Citizens can submit complaints online via platforms such as CPGRAMS and SWAGAT, and monitor the progress of their complaints from anywhere. The SWAGAT model sets a strong incentive for district level officials to be transparent and responsive as they can interact with the complainant directly through video conferencing with the Chief Minister. These two-way communication pathways shift governance from the "black box" to a "consultative" approach in which the information moves in an open manner and is accessible to everyone. Despite all the problems of the digital divide, the bureaucratization of the state with the aid of technology has considerably enhanced its ability to be impartial and rational.

Conclusion

The digital transformation in India is a transformational move to reimagine the role of the state in the lives of citizens. The initiative of Digital India has successfully created a strong framework for transparent and efficient governance, which had been characterized by multiple, paper-based processes, and has now shifted to integrated digital processes.

Technology has, in some respects, shown its potential to "correct wrongdoing," with the introduction of flagship initiatives such as Aadhaar and UPI.

But a digital bureaucracy is not a state that comes easily – it needs to overcome significant institutional obstacles. To clear formal obstacles, it is required to modernize administrative laws and to introduce standardized and interoperable administrative systems of the departments, in order to remove data silos. At the same time, there is a need to undergo a cultural transformation in the bureaucracy, from a "parachute" to a "service" culture, which can only be achieved by continuous capacity development, such as the Mission Karmayogi program. Future reforms must address the digital and language barriers, strengthen cybersecurity and data protection policies and practices, and ensure long-term sustainability and equity. Finally, the digital journey in India is a continuous process of institutional adaptation that can only be achieved through a joint effort of governments, industry and civil society that creates an inclusive governance model that fulfills the democratic aspirations of all Indians.

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