

Conceptualizing the Role of Data Analytics and Technology in E-Governance: An Insight

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ABSTRACT

Big Data in the current context is an asset for any government body as it helps in efficient and effective governance with the help of technology so as to create and build a citizen centric approach. As digitization has become an integral part of everyday life, data collection has resulted in the accumulation of huge amounts of data that can be used in various beneficial application domains. Effective analysis and utilization of big data is a key factor for success in many business and service domains. The Government of India initiated a Big Data exercise by collecting data in various forms, namely, PAN card data, voter ID card data, AADHAR data, BPL data, etc., which was meant to pass on the benefits of a specific nature to the beneficiaries. Various schemes have been conceived and implemented by different state and central governments wherein Big Data has been generated and has helped the beneficiaries in different facets of receiving the benefits. The next step of all these smart initiatives and smart data is to logically and correctly use the data for transiting the current policies into the futuristic levels. This paper selectively reviews and analyzes the Indian policy context regarding Big Data, data analytics and the associated technology requirements in the e-governance context.

KEYWORDS

Big Data, Data Analytics, E-Governance, Technology Shifts

INTRODUCTION

The data usage in the last few years has grown exponentially, the International Data Corporation (IDC) gave a report in 2011, as per which the generated and copied data size being used in the world was 1.8 ZB. In the succeeding five years this data size increased further nine times. The terminology of 'Big Data' is being much used in the current Academia, research, perceived usage and also in the Social media interactions (Sai and Abualigah, 2017). The Big Data has the potential to enhance the process of decision making as also efficiency and effectiveness of any organization, provided the correct analytics of the data is done by the organizations. It also assists in reducing the cost of new technologies and the computing time gets reduced drastically, the decision-making process and a plethora of aims and objectives also tend to get achieved by Big Data (Davenport & Dyché, 2013).

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The influence of modern technology can be felt in every aspect of our lives, even in the way our governments function. With smart governance, democracies around the globe are set to improve their education, security, transport, resource management, and economic infrastructure. We have built our democracies on the principle of good governance, which is a great starting point to ensure public welfare and development of the state. But people are losing their trust in the system due to the limitations of good governance like corruption, non-cooperation with the citizens, and unfair policies. Therefore, smart governance can improve the situation by creating a cooperative environment for citizens and businesses. Additionally, Information and Communication Technology (ICT) has given rise to an information-based atmosphere that can be exploited by smart governance to communicate and collaborate with businesses and citizens. And, the principles of good governance can be applied more effectively with the help of smart governance:

The developing and the new technologies propagate the advancements happening in E-Government. The uses of Information and communication Technologies (ICT) in E-Government enables government to connect with the citizens and other groups of people or associations. The direct connect of citizens with people allow government and its various agencies, to work in a transparent way, offering various facilities and functions to the citizens and other private groups. A study conducted by Grimsley, M. and Meehan pointed out that E-government systems frequently encompass strategic goals that go beyond efficiency, effectiveness and economy to include political and social objectives, such as trust in government, social inclusion, community regeneration, community wellbeing and sustainability. (Grimsley & Meehan, 2007)

Too often businesses eager to join the big data parade focus on technology. From this perspective, they acquire the newest analytical tools and assemble a mixed collection of technology stacks. However, without a clear idea of the business challenges that must be solved or opportunities that can be captured, the return on investment from this approach is limited. The best companies have shrugged off the excitement surrounding big data and adopted an approach that centers on clear business cases. Business strategy and proven use cases – individual instances of practical applications – guide investments and deployment at these companies. For example, they target increased cross sales by using analytics that offer next-product-to-buy recommendations or improved pricing strategies by analyzing consumer elasticity better. While details of implementation for each company will be unique, our research and experience suggests that excellence in four areas is crucial to gaining value from big data analytics as a complement to strategy: a solid anchor to business value, a pragmatic approach to IT, attracting scarce talent, and getting insights to the front line.

Governance is a challenge in a country as vast, diverse and rapidly developing as India. That's where new technologies can intervene, enable large scale transformation, and help in the implementation of ambitious government plans. Policymakers have been formulating innovative ways to usher in progress on paper. What they rely on is a robust infrastructure and smart solutions to translate inspiring plans to reality. The government has been spearheading radical digitalisation to induce economic inclusiveness and social transformation through initiatives like 'Digital India', 'Make in India' and 'Skill India.'

E-governance has emerged as a cornerstone of the Indian government's push to increase digital connectivity with the public. Critical to the government's stated goal of transforming India into a digital knowledge economy is speed of service delivery, enhanced efficiency, curbing corruption, and the state being able to reach out to the citizens efficiently- all of which can be boosted by e-governance. With a promised allocation of Rs 1.13 lakh crore, the government is

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