

# Modernising Governance through Technology: Understanding the Scope of Digital India and AI in E-Governance

Ajinas AM\*

Department of Medical and Health, All India Institute of Medical Sciences, Delhi, India

## Review Article

**Received:** 20/09/2021

**Accepted:** 04/10/2021

**Published:** 11/10/2021

**\*For correspondence:**

Ajinas AM, Department of Medical and Health, All India Institute of Medical Sciences, Delhi, India

**E-mail:** [naasaju@gmail.com](mailto:naasaju@gmail.com)

**Keywords:** E-Governance; Digital India; Participatory governance; Artificial intelligence; SUPACE

## ABSTRACT

Over the past two decades, the design and shape of Good governance have undergone tremendous changes. Today, the concept of governance has serious implications with digitization. Sitting in one place and collecting information from the whole world was a fantasy in history. The transformation from this fantasy to reality resulted in many positive outcomes in the process of good Governance. It includes ethical culture, good performance, effective administration and effective delivery of services and legitimacy. In such a scenario, the viability of building capacity development and introducing new technologies are also required. The scheme of digital India aims to make sure that government services are accessible for all electronically and efficiently by improving the scope of good Governance. This paper explores the ambit of AI-backed digital India's opportunities and the key factors that challenge E governance's potentials for the future.

## INTRODUCTION

Artificial intelligence provides opportunities for the citizen's to share, compliment and benefit in the way people live and work. In this AI revolution period, India took over a significant position by establishing several AI-backed projects in service delivery of Governance. It can enhance public accountability by tackling democracy deficits. The recent RAISE (Responsible AI for Social Empowerment) summit 2020 envisaged that it would allow the top 15 startups to express AI solutions to the global platform. They had also launched AI solutions to meet the challenges in education, healthcare, smart mobility and transportation [1]. In this context, it is crucial to notice that the government has to play a role in collaboration with the industries. Nevertheless, it is all about the civil societies and the government who play a key role in establishing the framework for E-governance. AI-backed digital India is the

future of e-governance. Compared to the previous developmental projects, the Digital India initiative is different in uniting several departments with existing and new programs. It launched on July 3, 2015, intending to empower every citizen of India digitally. In this framework of the public sector, the private sector will also play a key role in providing cloud-based service on demand. It will provide all possible services through a digital backbone to empower India's citizens through technology. Key vision areas of Digital India are the following. – Infrastructure as an essential utility to every citizen, Governance and services on demand and digital empowerment of citizens. These are the goals responsible for the rapid technology adoption that ensued in the country. The framework of digital India possesses nine pillars. They are 1- broadband highways, 2-universal access to phones, 3- public internet access program, 4- E-Governance – Reforming government through technology, 5-eKranti – Electronic delivery of services, 6-. Information for All, 7-Electronics Manufacturing – Target NET ZERO Imports, 8-. IT for Jobs, 9-Early Harvest Programmes, respectively. Some examples of digital backed initiatives that occupied a prominent position in e-governance are Direct benefit transfer, Digi-Locker, Aadhaar, UMANG services and Jeevan pramaan. Also, some of the e-governance schemes like SWAYAM, SWAYAMPRAKASH and the National scholarship portal are successful in reaching the country's remote areas by reducing the communication gap between government and public. The transparent environment of AI-backed digital India can simplify gathering and accumulating information from the public. On the other side, the ambitious flagship initiative of US India artificial intelligence (USIAI) is a futuristic project of the Indo-US Science and technology forum. Its focus is on identifying new research and development needed areas that could benefit both countries, especially in healthcare sectors, agriculture, infrastructure, and energy building. India's national education policy 2020 has also planned to introduce an introductory course on AI at the secondary level. These are the best examples that would support the assertion that the future of India's E-governance in collaboration with digital India will have backbone support from Artificial intelligence [2]. Thus, the digital initiative of India has a key plan to boost AI for promoting e-Governance, health and education services. It means that the application of AI in Governance enlarges opportunities for India to use the tools of information and communication technology for crosschecking and improving infrastructural and developmental constraints. The issues and challenges of Governance thus occupy the centre stage of political and academic discourse in the contemporary world. India, one of the fastest-growing economies in the world today, offers a classic example of how rapid economic transformations can make changes through the application of modern technology. In this regard, it is also important to critically analyse the concerns rising from the public regarding the employment opportunities, safety, legal and ethical issues of AI influence.

## LITERATURE REVIEW

### Participatory governance under Digital India

Governance may not be readily observable since it plays enormous roles to provide inclusiveness, equity, empowerment, responsiveness and broad-based participation of the public. Over the years, the government has initiated several projects and policies for service delivery. The national e-governance the plan is one among the several initiatives of the government of India. However, most importantly, it ensured transparency, efficiency and reliability of services. Government officials will act openly in transparent Governance. Because information regarding the government policies and actions are readily available to the citizens. Here decisions are taken with citizens' knowledge. Furthermore, there are some often-repeated suitable governance components like the rule of law, responsiveness, accountability, and participation. By following these components, over the past decades, the Governance has witnessed tremendous change in service delivery areas. The effectiveness of service delivery will automatically create an impression towards the Governance. Nevertheless, many of the democratic institutions found some issues that genuinely embrace information and communication technology potentials. Moreover, it results in the decline of trust and participation in Governance. The lack of efficient, innovative approaches to solving such dynamic issues may widen the gap again. To improve this efficiency and to create programs, more benefit-oriented people's participation is necessary.

However, in the era of Artificial intelligence and the technology revolution, the scope for people's participation needs to be analysed critically. Digital mass participation is prevalent in today's context. In order to use collective public decision making more inclusive online tools are there to share ideas and knowledge in the lawmaking process, which based on the theory of collective intelligence. Here, collective intelligence is about the idea that "many heads are better than one". The theory posits that the aggregation of individual knowledge and opinions from large groups results in often better decisions than those made by any single member of the group of experts. Automating government services and accessibility of online services for the ordinary person were the two traditional challenges of e-Governance. Recently Nokia India chief marketing officer Amit Marwah added that data consumption in India is probably the highest globally, ahead of markets like China, the US, France, South Korea,

Japan, Germany and Spain. It expects that the number of internet users will increase again by 2023. Broadband internet access has been expanded throughout the self-governing village councils or gram panchayats to connect every Indian citizen online. Today India is at the new phase of growth creation. The Government has focused on radical digitisation to ensure economic and social inclusiveness through major initiatives like digital India, skill India and make in India. Reliable and extensive scale access over the internet has ensured real-time security, agriculture sensors and intelligent infrastructures, which can use for risk analysis.

Without the participation of the people, democratic success will be impossible. The future of India can be determined by analysing people's participation in the technology revolution era. Moreover, the possibility for universally accessible digital resources is limited, and therefore digital divide originates. Availability of high-speed internet is a core utility for delivering services.

There should be easy access to service centres to enable digital participation. The idea for decentralised service delivery needs the potential to improve remote access over digital platforms. In order to make this attainable, universal digital literacy is needed. The primary service that has launched for service delivery and citizen participation can be discussed in terms of the working of MyGov initiative, which ensures citizen participation in decision-making by directly sharing ideas, views, and issues with the prime minister of India. It allows constructive feedback and discussion among participants.

On the other hand, both people and government organisations use the Swachh Bharat Abhiyan app to further the swachh Bharat mission. Other than this e-sign initiative builds online digital infrastructure by gearing aadhaar authentication. A service like the National Centre of Geo- Informatics is a project responsible for providing location-based data related to mining, industrial parks, central government land banks, water resources, and so on. This will help to come up with insights and suggestions that would help in the decision making process. The further development of Digi Locker promotes the use of digital wallet systems which would enable India's citizens to use the benefits like sharing verification of certificates and documents digitally.

Most importantly, the working of National Scholarships Portal helps to ensure effective disbursement of scholarship services for students. Along with these initiatives, public Wi-Fi hotspots is a revolution of today. According to the estimates made by Digi analysis, India's public Wi-Fi hotspot usage will increase from 0.3 in 2019 to 2.1 million by 2021 [3]. On the other hand, higher education continues to remain a dream for many. However, in recent times, especially, online education seems beneficial after the outbreak of the covid 19 pandemics. It made digital learning more convenient and normal. To create digital access to books EBASTA project has initiated. It made school books available on one platform. Web-based applications are available to install and navigate the structure. Due to this, today, our working professionals also started developing their new skills. And, this is how digital India's e-Education works.

The expansion of e-governance has witnessed a stupendous change after digital India by lengthening the citizen-centric approach. Therefore eTRADE is another example that ensured the availability of foreign trade agencies online. Governments are taking the issues of the public in particular through the application of digitisation. On the other hand, issues of development are also addresses in general. The new inventions in governance are making the citizens more conscious of their political rights.

The primary frameworks of digital India are also discussed in terms of the working of Common service centres, which are an access point for the effective delivery of welfare schemes with greater access to remote and rural areas of the country. Deen Dayal Upadhyaya gram Jyoti Yojana, an avant-garde project under the Digital India platform, has decided to electrify 18452 unelectrified villages within 1000 days. Since the development of rural India is a crucial issue, it is not possible to assure welfare of the nation. The activities mentioned above are measuring the applicability of e-governance among ordinary citizens. In other words, the program of digital India paved the way for it.

Figure 1: UN e-Governance survey 2020.

India	
Website	National Portal
Region	Asia
Sub-Region	Southern Asia
Income *	Lower middle income
Income Value	1,820 USD, GNI per capita
Population	1,309,053,980
E-Government Development Index	0.5964 Rank 100 of 193
E-Participation Index	0.8571 Rank 29 of 193

\* Income data refer to World Bank classification

## DISCUSSION

According to the United Nations e-governance survey of 2020, India's e- participation index rank is 29 out of 193. It was 58 out of 193 in 2010. However, it is the case of the global scenario. At the local level, socio-economic inequalities still create a division of access to network of communication technologies. Ideally, local governments are placed in a position to address local issues. Therefore a local government approach to understand the issues that limit modern technology use in governance can contribute more to the effective implementation and working of E-governance.

### The futuristic impacts of India AI on e-governance

The working of e-governance is integrated with an intelligent system, but it could raise various threats if its structure follows improperly. It can be anything like issues of data privacy, low quality in the continuity and inefficiency. AI in governance will automate manual tasks and provide a more advanced form of solutions against the breaks. Recently NITI Aayog has recognized AI for all in its national strategy for artificial intelligence as a tool to meet the nation's goals and aspirations. It also added that by 2035, AI applicability is expecting a 1.3% annual growth rate [4]. It will add a 2.5% increase in the gross domestic product as an immediate result. First, over the past few decades, the adoption of AI in the public sector has been slower than in the private sector. As a result, attention paid to AI use in government has been more recent. Globally, debates are going on regarding the impacts of AI, particularly on how AI standardization will affect the future of employment opportunities in India. Parallel to this, in 2018, the Ministry of Electronics and Information Technology (MEITY) has set up committees to draft a policy framework for Artificial intelligence to understand the impacts on society and the economy.

### Healthcare industry

There are immense challenges in the health sector in terms of affordability, quality and equity. However, it is also true that India has some of the best hospitals in the world. Increasing mobile connectivity and the popularity of wearable devices, as well as advances in technologies such as health IoT (the use of the Internet of Things to facilitate medical device integration), have provided opportunities for clinicians and public health researchers to better understand the physiological variability in individuals and populations to diagnose and deliver care, and to better plan to implement preventive and therapeutic measures. However, there is no centralised system for evaluating health indicators and status. The national health protection scheme conferred advanced opportunity to utilise IT to refine the quality further and discern fraud. It will enlarge the data processing capabilities of the state.

The health and wellness centres which come under the Ayushman Bharat scheme are working with the potential to achieve the goal of universal health coverage. The lack of a skilled labour force and insufficient infrastructure is still challenging to achieve the specified goal. But the acquisition of Artificial Intelligence has radically changed the working of health care service delivery. As per the blueprint for making Ayushman Bharat of 2020 more effective, it encouraged startups and innovators to work closely with private and public health sectors to bring out the merits of AI algorithms in clinical action. To be precise artificial intelligence is currently used in the health sector to exercise personalised data to understand patients inclination and preferences. For instance, a study conducted titled A principled machine learning framework improves the accuracy of stage II colorectal cancer prognosis, illustrated the application of machine learning to enhance the accuracy of Stage II colorectal cancer prediction. Early identification of the risks in both policy formulation and AI advancement in the health sector can prevent undesirable lapse. So that a structural analysis on the working of this system is needed.

### Smart infrastructure and mobility

Even today, the concept of a smart city is conjectural because many corporations today are using the concept just as an automation service that works in various divisions of the urban economy. In history, the city of Mohenjo Daro was one of the oldest cities ever built., therefore, the corroboration is that, right from the early life itself, cities have been built to satisfy the needs of the people. The modern journey of smart cities began in the 1970s when Los Angeles created the first urban big data project: "A cluster analysis of Los Angeles". But the first Smart city to come out with its creation of a virtual digital city in 1994 was Amsterdam. And this paved a path to the concept of transformations of cities into smart ones. In 2005, former US president Clinton challenged Cisco to use its capability to create cities more viable. And as a response to this, Cisco put up \$25 million over five years for research into smart cities, which caught everyone's attention. Three years later, the IBM Smarter Planet project investigated applying sensors, networks, and analytics, which could potentially solve urban issues. In 2011 the IT giant IBM named 24 cities as Smarter Cities winners from 200 applicants. And 6000 visitors from over 50 countries attended the first Smart City Expo World Congress in Barcelona. The following year, China announced the first batch of intelligent cities consisting of 90 cities, districts and towns. In 2014 China announced its second pilot batch of 103 smart cities. In 2015, India's Prime Minister Narendra Modi launched the "Smart Cities Mission" for 100 Indian cities.

Currently, India is witnessing the efflux of urbanization. AI in smart cities will result in AI tech monitoring in public facilities and parks. And the operational conditions will save cost and time by providing safety and security. On the other hand, domestic functions, including water utilization and management, can reduce human effort in daily tasks. AI based citizen grievance redressal platforms can rationalize administration in urban affairs. With increasing population, pollution, and poverty in the current scenario, there needs to be a development of cities and enhance life quality. Providing affordable homes, provision of proper education and health services, and increased IT connectivity are some of the essential features of Smart cities. The associated benefits of Artificial Intelligence, Big Data and Smart Cities have the potential to render numerous positives to an urban fabric. The potential of AI to keep the public property and safety will enhance the quality of lives of the city dwellers.

### AI in law

Artificial intelligence or AI makes it possible for machines to learn from experience, adjust to new inputs, and perform human-like tasks. AI as new technology increasingly impacts other areas and professions. The role of artificial intelligence in law is increasingly transformative. For instance, a lawyer needs to understand the financial or the characteristics of the logistics of the case. Here, it will make the records related to the case like organizing the data, updating developments of the case to the clients, keeping an eye on expenditure and so on. Dr Singhatiya, founder and CEO of Legal Kart, has emphasized that AI can bring an immense improvement in the efficiency of the lawyers to outreach several forums. One of the most talked-about benefits of applying artificial intelligence in law is time savings, which translates to saving money. AI contract review platform LawGeex explains that AI solution competed against 20 top corporate lawyers in reviewing NDAs (Non-Disclosure Agreement) is a binding legal contract that prevents one party from revealing another party's secrets). They found that their AI tool achieved an average 94 per cent accuracy rate at surfacing risks in NDAs compared to 85 per cent for the lawyers. It is a way to reduce costs without sacrificing performance and accuracy. The supreme court has launched an artificial intelligence portal, SUPACE (Supreme court portal for assistance in court efficiency), to deal with case data. According to the national judicial data grid, about 3.81 crore cases are pending before the courts in India. Also, over a lakh case have been pending for 30 years. In this scenario, AI will function as a blend of human as well as artificial intelligence. Here all information between the lawyer and the client will be recorded, and this is a case of discord for using AI solutions on a legal basis. In this regard, Justice SA Bobde made it clear that artificial

intelligence will be limited to the case and data management only and not in the decision making. Predominantly earlier, the department of legal affairs (DoLA) and ministry of law and justice (MoJ) has introduced legal information management and briefing system to monitor the cases uploaded from the high court and subordinate courts Commissionerates [5]. In 2019 Supreme Court has launched SUVAAS (Supreme Court vidhik anuvaad software). This machine-assisted transition tool is supported by artificial intelligence that translates court orders and other legal judgements to 9 vernacular languages. Later it will extend further to other regional languages also. However, the new initiatives carry the potential to make the whole practice more efficient.

### AI in agriculture

Artificial Intelligence (AI) is quietly but frequently invading Indian agriculture, transforming our society massively. Indeed, though machine learning and artificial intelligence have been used for analysis and forecast determinations, they are also good at food grading and crop yielding forecasts. The new collection of deep learning algorithms has published the feasibility of making AI applications and research higher and more enhanced. Furthermore, different AI methods are building encroachments in all fields, including farming. Amid lofty expectations concerning whence AI will assist the ordinary person and mould his mindset, ideas, and approach towards the advantages that it may bring, particularly concerns about such sophisticated technologies ill-effects. Toward the end, if AI policies can enhance or improve farmers in terms of their social and economic wellbeing, we should be admissible to innovating new upcoming technologies with AI at its heart.

While inaugurated responsible AI for social empowerment summit (RAISE) 2020, Prime minister Narendra Modi said that "I see a big role for AI in empowering agriculture, healthcare, education, creating next-generation urban infrastructure and addressing urban issues". Most importantly, the Indian agri-tech market valued at \$204 million has just reached only 1% of the estimated range of \$ 24 billion. Modern technology usage in the agriculture sector can enhance farmers' access to markets and credits. Extensive testing and validation of emerging AI applications in this sector will be critical as agriculture is impacted by environmental factors that cannot be controlled, unlike other industries where risk is easier to model and predict. Indian agriculture faces multiple challenges due to the dependence on monsoon, soil fertility, and resource incentives. In India, the agriculture and allied sector contribute less than 17% to its US\$ 3 trillion economies today. In this regard, Indian agriculture technology startups have been testing to integrate AI-based solutions to monitor and manage crop productivity, ensure supply chain efficiency, and predict changes. It can give alerts on future pest attacks and suggest the best time to sow seeds as well. The world needs to produce 50% more food by 2050. However, only 4% of additional land will come under cultivation to meet this demand. Farmers are facing the issue of supply change challenge. However, policymakers have not yet made solutions in this regard.

On the other hand, farmers are not receiving a minimum support price for their products. At the same time, the introduction of AI in supply chain management will work as an informed mechanism in the supply chain for optimization and planning. Also, demand forecasting and logistics management will give considerable benefits to the farmers. Artificial intelligence in India's agriculture is yet to prick, especially to the marginal and small farmers. Therefore, policy initiative should be well designed to avoid inequalities between the small and large landholders.

### AI in education

The Central Board of secondary education (CBSE) on 2021, made a collaborative initiative titled AI student community (AISC) under the framework of the ministry of education (MoE) and Intel India. It is a program that focuses on creating an AI-ready generation. It enables collaborative learning and sharing of real-life social impact AI solutions. It enables the students to join in a common platform for sharing and learning experiences. It also aims to expand AI awareness inclusively. To integrate AI in schools, it has introduced two teachers' handbooks. The first handbook includes a curriculum for eighth and ninth standard students to converge technological and social skills. The second handbook is about enhancing a multi-disciplinary approach across the teaching-learning process for AI integration. On the other hand, the all India council for technical education approves suggestions from institutions on providing AI as an elective subject for Btech. Apart from this many IITs today offers AI-related course. IITs also conducts short term programs on artificial intelligence for working professionals. It shows that AI has already become a part of the Indian education system. According to market research future, Artificial intelligence in the education market is expected to reach USD 2 billion by 2023. When AI applies to the education system, people will enjoy personalised learning and skill development.

Furthermore, the United Nations Development Program (UNDP) insists that AI in education contains the immense potential to overcome many education system challenges today. UNESCO has committed to supporting its member states to harness hindrances for achieving the education 2030 agenda. Teaching artificial intelligence in schools necessitate three areas: Learning with Artificial intelligence which aims to include AI-based instruments in schools. Secondly, learning about AI, which means to understand its technologies and techniques. And finally, preparing for artificial intelligence which enables everyone to understand the potential of AI in human lives.

Placing AI at the top level would increase the existing inequalities in the education sector. It also argues that emphasis on data-driven pieces of information and learning could decrease the possibilities of holistic education. The product-driven logic behind the education market may risk the ethics in education, which would affect the future growth of the nation.

### **Issues and challenges of Emerging technologies in e-governance**

While the tools of modern technologies in governance bring huge benefits, it is also essential to cross-check its pitfalls. Digital innovations of today have immense capability to change the way we live and work. The digital platforms constantly pressurize the government to re-examine the use of information systems. To support the general goals of governance today, the government needs coordination in utilizing information technology resources. The technology era has provided numerous opportunities with a series of new challenges. When it applies the digital India initiative from an e-governance perspective, connectivity is still a stumbling block. Every state has its laws for the execution of the program. Maintaining connectivity with every village and cities is still a task. Adopting digitalization in many parts of the country is limited to a certain extent. The high prevalence of high-level digital illiteracy is the core reason for this. Pradhan Mantri Gramin digital Saksharta Abhiyan (PMGDISHA) was initiated in 2017 to make six crore persons of rural India digital literate by 2019. But the training has been given only to 2.56 crore. Lack of better infrastructure investment in the rural areas widens the gap again.

Other than this, interdepartmental coordination, net neutrality and cybercrimes are creating challenges towards the project. Electronic interaction is a key priority of government web portals in e-governance. There is government to citizen (G to C), Government to business (G to B), government to employees (G to B) and government to government (G to G) communication come about to provide all policy-related information through a single window. It has been proved that e-governance measures can ensure transparency and accountability by reducing the communication gap with the government. While introducing e-governance and new technology measures protecting individual privacy is also an area of concern. Protecting child rights and concerns regarding privacy issues need to be thoroughly addressed before implementing a new regime. Careful handling of the information given by citizens should be protected with utmost care because citizen confidence matters in the implementation and working of a program.

Along with this, people need to be educated on the importance of security concerns. Top management support for the fulfilment of the program is another area of challenge. Because, in every policy, structured leadership can be a driving force for the effective functioning of the governance. Gaining high-level support can guarantee development and coordination among the stakeholders and the ordinary person. Emerging technologies in e-governance nowadays create a new form of inequalities like the digital divide and resolving the unemployed as a future trend. National strategy for AI has several implications connected to e-governance. It will not be a success unless it ensures inclusive growth. Generally, it has created many new opportunities. However, it has its obstacles like labour force dislocation and national security challenge. It means the economic potential of artificial intelligence in service delivery should have the accomplishment for social development. For that purpose, a holistic approach towards the plan implementation must keep up the democratic values. Earlier it was assumed that artificial intelligence in the future governance would play a role only in automating repetitive tasks at the lower decision making level. But AI has made rapid growth by owning more powerful computers and handling substantial data sets. Ethical concerns of this rapid mechanizations in governance may create challenges in policing and law enforcement scenarios. AI creates serious challenges, particularly in security, privacy, surveillance, and civil liberties. Allowing Unreasonable curtailing of actual or perceived liberty will question human dignity. Therefore AI design must provide an applicable foundation for personal data protection.

## CONCLUSION

Amidst this domestic storyline, India's ministry of external affairs (MEA) has announced the initiation of new emerging and strategic technology (NEST) as part of its tech diplomacy. It is expected that it would help assess the foreign policy by giving pieces of information regarding the legal backgrounds of the emerging technologies. It would further suggest suitable foreign policy choices also. Many of these new initiatives have already made India a data labelling giant of the new era. Technology in governance has created a new form of geopolitical competition in this global scenario, especially with the great powers. In the domestic scenario, it is creating a revolution by electronically interacting with citizens. Developing e-learning and a suitable tech environment for ordinary people can really bridge the issue of the digital divide. India adopts a multi-stakeholder approach in the case of internet governance. Responsibility of internet governance division of the ministry of electronics and information technology (MEITY) focuses on creating internet awareness to represent India as a tech giant in the global platforms. As part of this, the government has adopted many e-governance initiatives combined with emerging technologies for enhancing citizen participation in governance. The government digital service survey of 2017 on technological innovations in government describes the possible public sector changes that would bring in the society, like changes in the service delivery, processes, regulations, policies, and technology. The successful achievements of the above-mentioned outcomes will make e-governance the actual facilitator of public value. In order to get sustainability in governance, government should put more emphasis on ensuring equal opportunities for all. In this scenario, the willingness of the government to accept citizen participation in decision making also matters in empowering e-governance.

## REFERENCES

1. Chassignol K, et al. Artificial Intelligence trends in education: A narrative overview. *Procedia Comp Sci.* 2018; 136: 16-24.
2. Guan M. Artificial intelligence innovation in education: A twenty-year data-driven historical analysis. *Int J Innov Stud.* 2020; 4: 134-147.
3. Kumar. E-Governance in India: Definitions, challenges and solutions. *Int J Comp Appl.* 2014; 101: 6-8.
4. Mittal. E-Governance-A challenge for India. *Int J Adv Res Comp Eng Technol.* 2013; 2: 1196-1199.
5. Parmar K, et al. Review article: E-Governance strategies-An overview. *Int J Comp Intel Res.* 2017; 13: 865-871.