

## **Role of E-governance in NEP 2020, e-Education Sector**

**Dr. Pravita Tripathi<sup>1</sup>**

**Abstract:** E-governance is the use of information and communication technology ICT for the planning, implementation and monitoring of government program, projects and Activities. E-governance is expected to help deliver cost-effective and easy-to-access citizen services, and improve the processing of transactions both within the government and between the government and other agencies. A period of Restructuring and revival of the government structure and functioning began in the 1990s s including efforts to improve the public distribution system of the state. The ICT has played an important role in the process of making government officials Accountable and effective in their work. E-governance goes beyond the computerisation of government functions and provides information on the basic functions of the structure, operation and functioning of all government. The national E-governance plan (NEGP), which is the flagship e-governance programme of the central government, was approved by the government of India in May 2006. Comprising 27mission mode projects (MMPs) at the central state and local government Level. But the number of mission mode projects is going to be 30, which are under process on the cabinet, where the education sector is one of them. Under the NEGP, the ‘state mission mode projects” and Land record, Road transport, property registration, agriculture Treasuries.

**Keywords:** ICT equity, Data analysis tools, pedagogy, e-learning and abilities

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### **Introduction**

E-governance refers to the strategic application of Information and Communication Technology (ICT) to enhance governance across various sectors, including municipalities, panchayats, commercial taxation, police employment, welfare exchanges, and social cooperation. It extends across administrative, legislative, judicial and executive domains, aiming to streamline operations and improve public service delivery.

In both academic and governmental organizations, e-governance facilitates the implementation of smart governance, where "SMART" stands for Simple, Moral, Accountable, Rational, and Transparent. This framework promotes ethical decision-making, citizen responsiveness, and operational clarity (Bhatnagar, 2004; UNDP, 2001).

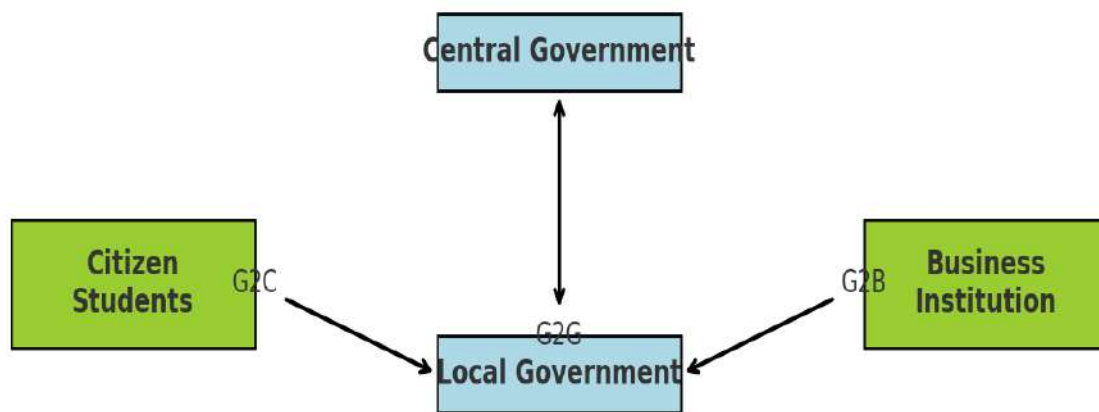
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<sup>1</sup> Assistant Professor Department of Political Science, Sw. RNS Degree College Sarwa Kanpur

The public sector's use of ICT under e-governance is designed to:

- Improve the quality and speed of information and service delivery
- Encourage citizen participation in decision-making processes
- Enhance government accountability, transparency, and effectiveness (Heeks, 2001; Singh & Sharma, 2020)

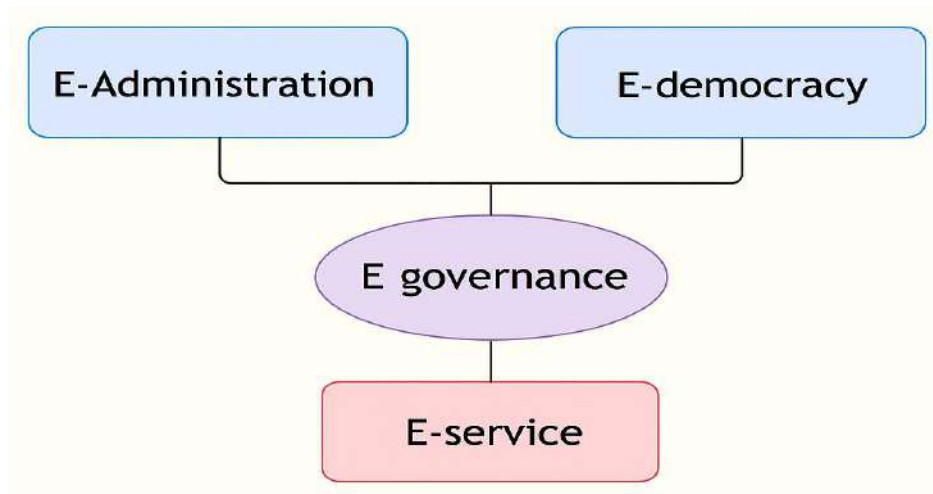
Smart governance is particularly beneficial in enabling real-time communication, reducing bureaucratic delays, and fostering inclusive development. It empowers citizens by making governance more participatory and data-driven, thereby reinforcing democratic values and institutional credibility. (Graph-1)



**(Graph-1: Government to Citizen and Government to Business Operations.)**

### Goals of e-governance

1. Improve the internal processes of government. (Graph 2)
2. Provide better information and service delivery.
3. Increase government transparency to reduce corruption.
4. Reinforce political credibility and Accountability.
5. Promote democratic practice through public participation and consultation.



**Graph 2: Field of e-Governance**

e-Governance is used for money proposed:

- (A) Drying Agent
- (B) Communication.
- (C) Seva distribution and lending.
- (D) Equipment.
- (E) Politics participants.
- (F) Grievance redressal



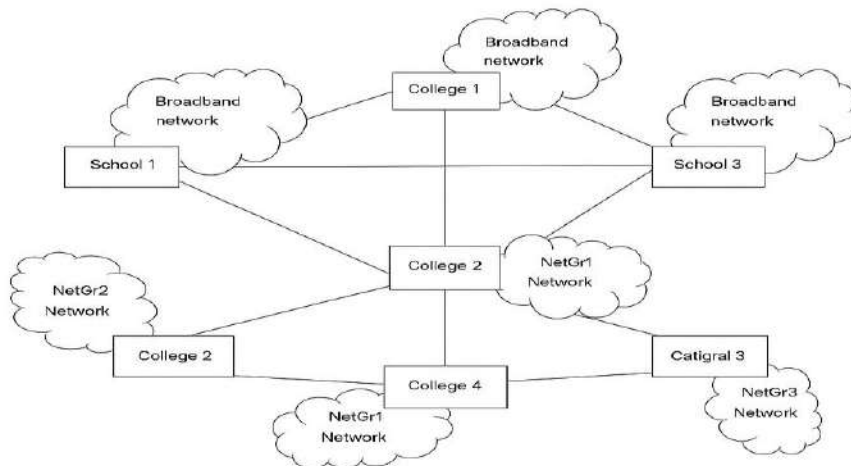
**Graph-3: Object of E-governance in education**



## **Models of E-governance**

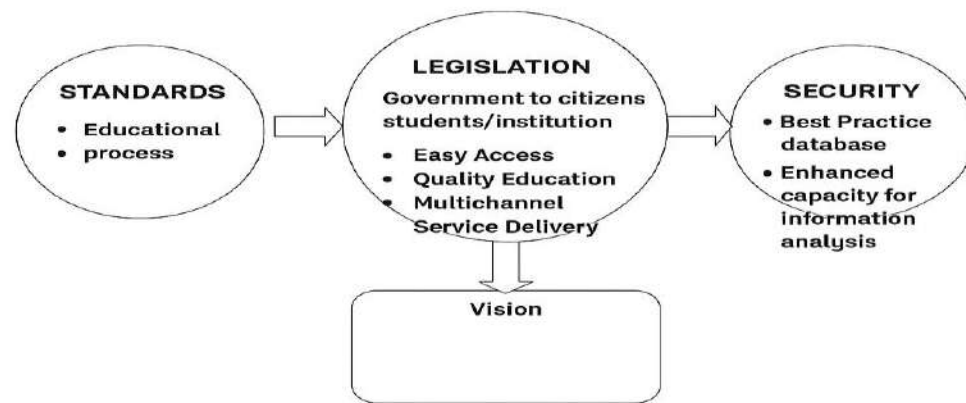
Prof. Dr. Eri Hlachami, in his paper e-Government theory and practice: the evidence from Tennessee UTS' Five Models of e-Governance tells me what it is like.

- 1. Broadcasting Model:** It is based on the dissemination of information, which is in the public administration sector, along with ICT and mass media. This model is better able to evaluate the Activities of educated citizenry and government. It plays a vital role in preserving the democratic character of the society, which is possible through e-governance.
- 2. Critical Flow model:** The model is based on the dissemination of great ideas in the field of mass public governance using ICT and mass media. The strength of this module is that it takes into account additional distance and time.
- 3. Comparative Analysis Model:** According to Prof. Chami, this module helps in finding the system of development that makes the country better, which the governance more effective in the nation.
- 4. Advocacy mobilization and Lobbying Model:** This module mobilizes real-world Action by incorporating concern and concerns expressed by the virtual Community. These modules help the world society in global decision-making making administrative, legislative and judicial lines. e-Governance is the use of ICT to operate smart governance in academic and government organization. The meaning of smart is simple, moral, sensible, accountable and visible. Smart governance is helpful. Improving the International organisational process of government.
- 5. Interactive service module:** This opens the way for individual participation in governing and transparency in decision-making process.



**Figure 2: Proposed grid layout**

**PROPOSED GRID MODEL**



**Graph 4: Benefits of e-Governance**

**Limitations of e-governance:**

- 1-Infrastructure
- 2-Resources.
- 3-Capital
- 4-Access.
- 5-capacity building
- 6-Human Resource Development
- 7-Resistance to change.
- 8- Language.



### **Initiatives of the government of India on E-governance Development:**

- 1-In 1998a national task force on information technology and software development was established.
- 2-The Ministry of Information Technology created the centre in 1999.
- 3-A 12-point agenda for e-governance was formulated for implementation in all central ministries and departments.
- 4- The Scientific Technology Act 2000 was enacted. this act was amended in 2008.
- 5- The government established the Nisag National Institute for Smart Government.

### **Benefits of Wi-Com**

- 1-Greater campus safety
- 2- improved campus communication.
- 3- Anywhere Access to Academic Tools and Resources.
- 4-fully hosted system.
- 5- Student staff: Access the features through the web.

The traditional education system has struggled to meet the evolving demands of learners in a rapidly changing socio-economic and technological landscape. In response, the Distance Education system emerged as a flexible and inclusive alternative to address both current and future educational needs (Moore & Kearsley, 2012). The integration of Information and Communication Technology (ICT) has significantly expanded the scope of distance learning. Off-campus delivery models now enable students, especially those unable to attend regular classes due to geographic, economic, or personal constraints, to access quality education remotely. ICT-supported platforms offer time- and cost-efficient learning environments, allowing students from diverse backgrounds, cultures, and perspectives to engage in academic activities at their convenience (Anderson, 2008).

Online technologies facilitate asynchronous and synchronous learning, supported by mobile devices and seamless communication tools that enable 24/7 access to educational resources. Eminent educators from across India and abroad can now contribute to teaching through platforms such as the National Programme on Technology Enhanced Learning (NPTEL) and the Eklavya Technology Channel, which have played a



pivotal role in democratizing technical and higher education (MHRD, 2007; IIT Bombay, 2007). These initiatives exemplify how ICT-enabled distance education fosters equity, flexibility, and lifelong learning, aligning with national goals of inclusive and accessible education under NEP 2020.

### **National E-governance conference:**

The Department of Administrative Reforms and Public Grievances (DARPG), in collaboration with the Ministry of Electronics and Information Technology (MeitY) and various state and union territory governments, has been organizing the National E-Governance Conference (NEG) annually since 1997. These conferences serve as a platform to showcase best practices, innovations, and policy frameworks in e-governance across India.

The 23rd National E-Governance Conference was held in Mumbai, Maharashtra, on 7–8 February 2020, under the theme “India 2020: Digital Transformation”. This conference built upon the guidelines outlined in the Shillong Declaration, adopted during the 22nd NEG and emphasized the following key priorities:

- Enhancing public service delivery through digital platforms, with a focus on health, agriculture, education, and land records
- Improving India’s ranking in the UN E-Government Development Index
- Building trust in digital services through incentives and transparency
- Institutionalizing digital governance practices across central ministries and state departments
- Promoting India as a global cloud hub and encouraging the development of government applications
- Fostering excellence in governance and facilitating the adoption of digital skills across sectors

These efforts align with the broader vision of the Digital India Initiative, launched by MeitY in 2015, which aims to transform India into a digitally empowered society and knowledge economy (MeitY, 2015).

### **Key Initiatives Under Digital India**

Digital India encompasses a wide range of sectoral programs designed to bridge the gap between citizens and government services. Some notable initiatives include:



## **1. Digital Locker**

A secure cloud-based platform that allows citizens to store, access, and share digital documents such as Aadhaar, PAN, educational certificates, and driving licenses. It reduces the need for physical documentation and promotes paperless governance (MeitY, 2020).

## **2. Online Registration Framework (ORF)**

This system enables patients to book *OPD appointments* in government hospitals online, improving access to healthcare and reducing wait times (National Informatics Centre, 2020).

## **3. Rastriya Chhatravratti Portal (NSP)**

A centralized platform for students to apply for scholarships under various government schemes, ensuring transparency and timely disbursement of funds (NSP, 2020).

## **4. DARPAN**

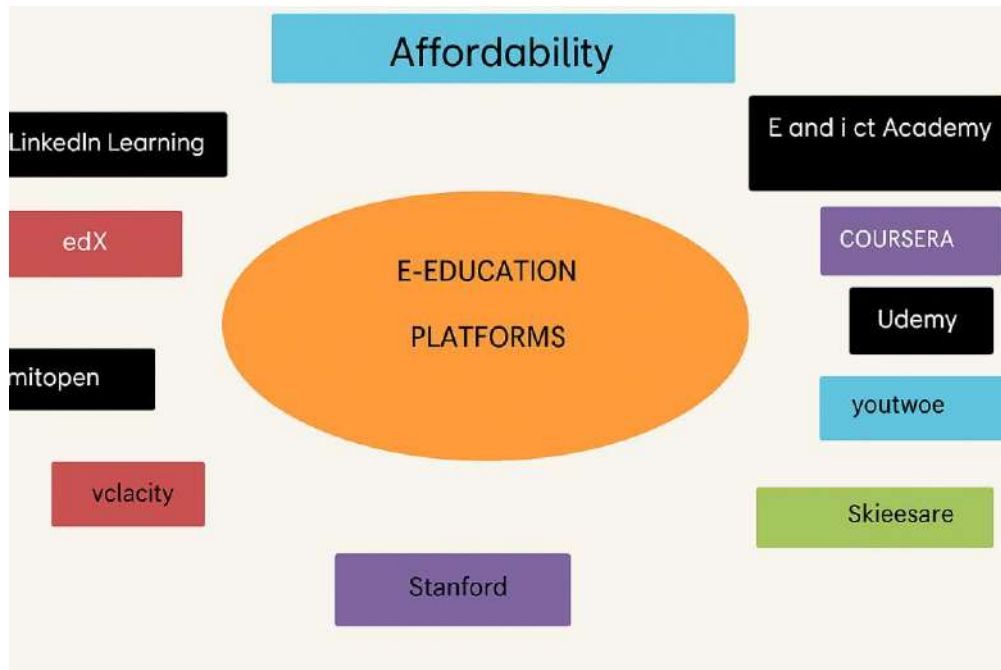
An online dashboard used to monitor and analyse the implementation of high-priority government projects, enhancing accountability and performance tracking (DARPG, 2020).

## **5. SWAYAM**

A Massive Open Online Course (MOOC) platform offering free educational content from Class 9 to postgraduate level, developed by top Indian institutions. It democratizes access to quality learning resources and promotes lifelong learning (SWAYAM, 2020).

## **6. Citizen Engagement Platforms**

Tools such as “Do, Discuss, Poll, Talk, Blog” encourage participatory governance by allowing citizens to share feedback, engage in policy discussions, and contribute to decision-making processes (MeitY, 2019).



**Graph 5: e-Education platforms**

It has replaced the 34-year-old national education policy formulated in 1986. Key points 2020 is based on 5 pillars and these are -Access, Equity, Quality, Affordability and Accountability.

**PANG DiSha:** The aim of the Pradhan Mantri Grameen Digital Saksharta Abhiyan is to make six crore people in Rural India digitally literate.

- e-Health care
- Cyber security
- E Court
- Financial inclusion through e-ATM.

E-governance in education refers to the strategic use of Information and Communication Technology (ICT) to improve communication, instructional delivery, and administrative efficiency within educational institutions. It offers innovative ways to engage students, streamline operations, and democratize access to learning resources (Bhatnagar, 2004; UNESCO, 2017).



## **Key Benefits of e-Governance in Education**

- **Faster Operations:** Digital platforms enable schools to complete administrative tasks—such as paperwork, admissions, and reporting—more efficiently, saving time and reducing manual errors (Heeks, 2001).
- **Transparency and Fairness:** E-governance makes institutional processes more visible and accountable. Stakeholders can access rules, resources, and performance metrics, ensuring equitable governance (Singh & Sharma, 2020).
- **Inclusive Access:** Online learning platforms allow schools to reach students in remote or underserved areas, expanding educational opportunities and reducing geographic barriers (Anderson, 2008).
- **Data-Informed Decision Making:** ICT tools help educators analyze student performance and learning needs, enabling evidence-based pedagogical and policy decisions (Moore & Kearsley, 2012).
- **Cost Efficiency:** Digitization reduces reliance on paper and physical infrastructure, lowering operational costs and improving resource allocation.
- **Enhanced Communication:** E-governance fosters seamless interaction among students, teachers, parents, and administrators, promoting collaboration and responsiveness.
- **Innovation and Adaptability:** Schools can experiment with new teaching methods and technologies, staying aligned with global educational trends.
- **Environmental Sustainability:** Reduced paper usage and digital workflows contribute to eco-friendly practices in education.

## **Core Areas of E-Governance Implementation**

- **E-Administration:** Application of ICT to optimize internal operations such as admissions, attendance, payroll, and library management.
- **E-Services:** Interactive platforms for issuing certificates, ID cards, and documentation requests, improving service delivery to students.



- **E-Participation:** Active involvement of students, educators, and administrators in decision-making processes through digital forums and feedback systems.

## **NEP 2020 and the Digital Transformation of Education**

The National Education Policy (NEP) 2020, announced on 29 July 2020, outlines a comprehensive reform agenda for school and higher education in India. It emphasizes technology integration, inclusive access, and learner-centric pedagogy (MHRD, 2020).

### **Salient Features of NEP 2020**

1. Universal access to education from pre-primary to Grade 12
2. Quality early childhood care and education for ages 3–6
3. New curricular structure: 5+3+3+4
4. No rigid separation between academic, vocational, and extracurricular streams
5. National Mission on Foundational Literacy and Numeracy
6. Promotion of multilingualism and regional languages
7. Board exams offered twice annually for flexibility
8. Establishment of a national assessment and review body
9. Inclusive education for socially and economically disadvantaged groups (SEDGs)
10. Gender Inclusion Fund and Special Education Zones
11. Four-year integrated Bachelor of Education programs
12. National Mission for Mentoring
13. Creation of the National Education Technology Forum (NETF)
14. Achieving universal youth and adult literacy
15. Increasing Gross Enrollment Ratio (GER) in higher education to 50%
16. Holistic and multidisciplinary education with multiple entry/exit options
17. Common entrance exams via the National Testing Agency (NTA)
18. Establishment of the Academic Bank of Credit
19. Creation of Multidisciplinary Education and Research Universities (MERUs)



20. Formation of the National Research Foundation (NRF)
21. Light but tight regulatory framework
22. Higher Education Commission of India (HECI) with independent verticals:
  - General Education Council
  - Higher Education Grants Council (HEGC)
  - National Accreditation Council (NAC)
  - National Higher Education Regulatory Council (NHERC)
23. Expansion of open and distance learning
24. Internationalization of Indian education
25. Integration of professional education into mainstream higher education
26. Stage-specific, subject-specific four-year B.Ed. programs
27. Establishment of a National Mission for Mentoring

These reforms align with the broader goals of e-governance by promoting transparency, flexibility, and digital empowerment across the education system.

### **Heights of National Education policy (NEP2020) for school Education**

**The National Education Policy (NEP) 2020** envisions a transformative shift in India's education system, emphasizing inclusive, learner-centric and technology-enabled approaches. The following priorities are central to its implementation in school education (Ministry of Education, 2020):

1. **Early Childhood Care and Education (ECCE):** Ensuring quality care and foundational learning for children aged 3–6 years through play-based and activity-driven pedagogy.
2. **Foundational Literacy and Numeracy (FLN):** Establishing a national mission to ensure that every child attains foundational skills by Grade 3.
3. **Universal Access and Dropout Prevention:** Expanding access to education at all levels and implementing strategies to reduce dropout rates, especially among disadvantaged groups.
4. **Holistic and Engaging Learning:** Promoting integrated, enjoyable, and experiential learning that nurtures creativity, critical thinking, and emotional development.



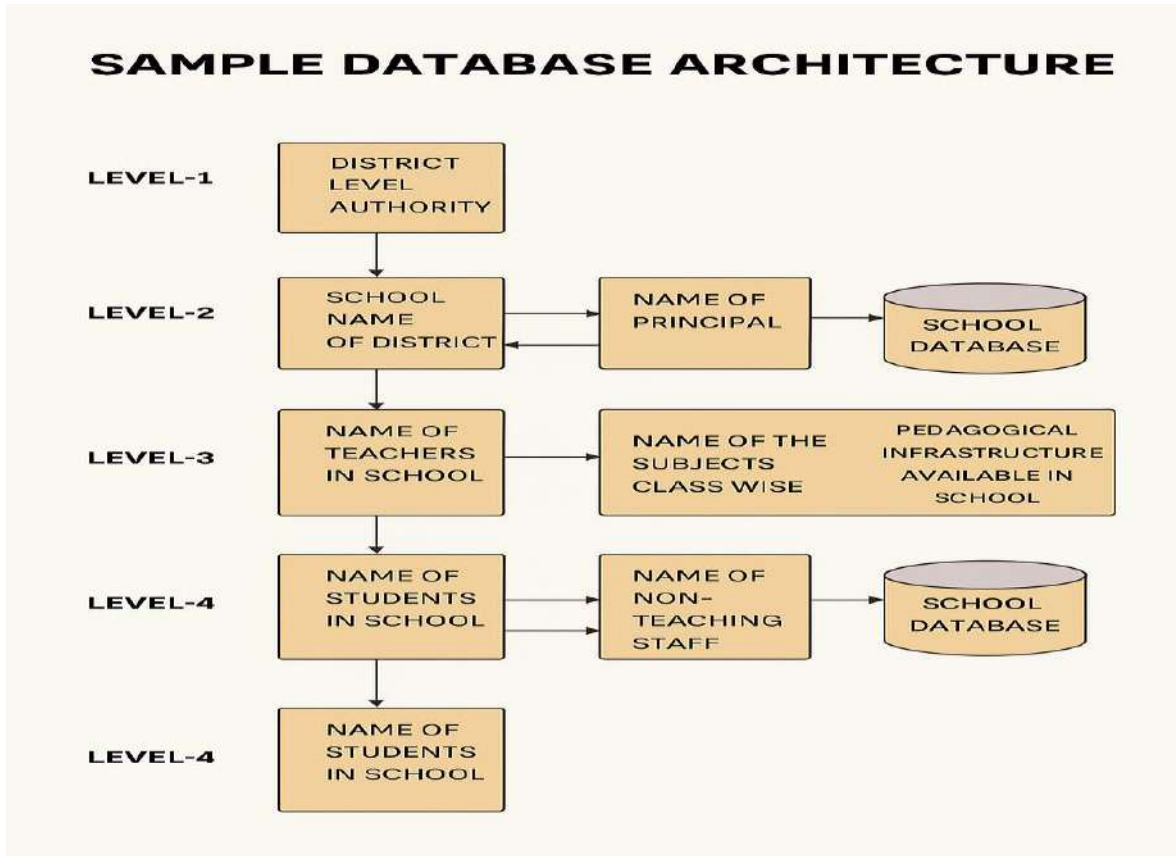
5. **Teacher Empowerment:** Enhancing teacher capacity through continuous professional development, autonomy in curriculum delivery, and recognition of their role as facilitators of learning.
6. **Equitable and Inclusive Education:** Ensuring that all learners, especially those from socially and economically disadvantaged groups (SEDGs), have access to quality education.
7. **Standard Setting and Accreditation:** Establishing robust frameworks for school quality assurance through transparent accreditation and benchmarking processes.
8. **Pedagogically Sound Practices:** Encouraging evidence-based teaching methods that align with developmental needs and learning outcomes.
9. **Technology Integration:** Leveraging digital tools for teaching, learning, assessment, and administration to improve access, efficiency, and personalization.

### **Benefits of E-Governance in the Education Sector**

E-governance enhances the effectiveness, transparency, and inclusivity of educational institutions by integrating ICT into core operations. Its benefits include:

1. **Improved Departmental Efficiency:** Automation reduces duplication of efforts and streamlines administrative workflows (Heeks, 2001).
2. **Rapid Report Generation:** Digital systems enable quick and accurate preparation of academic and administrative reports.
3. **Reduced Student Harassment:** Transparent processes minimize bureaucratic hurdles and protect students from undue stress.
4. **Simplified Online Processes:** Submission of forms, fee payments, and access to academic records become faster and more user-friendly.
5. **Enhanced Stakeholder Connectivity:** Seamless communication among management, faculty, students, and administrative staff improves coordination and service delivery (Bhatnagar, 2004).
6. **Universal Information Access:** E-platforms ensure that all stakeholders can retrieve relevant information anytime, anywhere.

- 7. **Resource Optimization:** Digital operations reduce costs related to transportation, physical infrastructure, and manpower, making education more sustainable and accessible.



**Graph 6: Database Architecture**

### **Fields of E-Governance in Government**

E-governance refers to the strategic use of Information and Communication Technologies (ICT) to enhance the efficiency, transparency, and responsiveness of government operations. It encompasses several key domains:

#### **1. e-Administration**

E-administration involves the digitization of internal government processes to improve operational efficiency, reduce redundancy, and streamline workflows. It focuses on modernizing public sector management through ICT-enabled systems (Heeks, 2001).



## **2. E-Service**

E-service aims to improve the delivery of public services to citizens by offering interactive, accessible, and user-friendly digital platforms. Examples include online requests for public documents, legal certificates, permits, and licenses (Bhatnagar, 2004).

## **3. E-Democracy**

E-democracy promotes active citizen participation in governance through digital platforms. ICT tools enable broader engagement in decision-making processes, fostering transparency and accountability (UNESCO, 2017).

## **4. ICT and E-Governance**

ICT enhances citizen involvement in governance at all levels. For governments, it enables faster service delivery, reduces transaction costs, and improves accessibility and responsiveness (Singh & Sharma, 2020).

### **Objectives of Government in Education**

The government's primary objectives in education include:

- Ensuring equitable access to quality education
- Promoting inclusive and lifelong learning
- Enhancing administrative efficiency and transparency
- Leveraging technology for improved learning outcomes
- Supporting data-driven policy and planning

### **E-Governance in the Education Sector**

E-governance in education refers to the application of ICT for planning, implementing, and monitoring educational programs, policies, and institutional operations. It facilitates cost-effective, transparent, and accessible services for all stakeholders (Ministry of Education, 2020).

### **Core Functions of Educational e-Governance**

1. **Automated Admissions:** Streamlining student enrollment through digital platforms



2. **Student Information Management:** Centralized databases for academic and personal records
3. **Curriculum and Class Scheduling:** Dynamic management of subjects and timetables
4. **Transport and Maintenance Oversight:** Digitized tracking of logistics and infrastructure
5. **Attendance Monitoring:** Real-time tracking of student and staff attendance
6. **Library Automation:** Digital cataloging and circulation systems
7. **Payroll and Expense Management:** Efficient handling of staff salaries and institutional finances
8. **Examination and Assessment Systems:** Online exam scheduling, grading, and result dissemination
9. **Gradebook Creation and Performance Analysis:** Data-driven insights into student achievement
10. **MIS Report Generation:** Comprehensive management information system reports for decision-making
11. **Digital Communication Tools:** Institutional email and collaboration platforms for staff and administration

## **Conclusion**

Educational e-governance plays a transformative role in enhancing transparency, accelerating information dissemination, and improving administrative efficiency. It empowers institutions to deliver high-quality public services, foster inclusive learning environments, and adapt to the evolving demands of the digital age.

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