SET-5

1. **What do you understand by Models of Digital Governance? Explain wider dissemination model referring to the principle , application , evaluation and various projects based on this model.**

Ans :: Models of Digital Governance refer to frameworks or approaches used by governments and organizations to manage and govern digital technologies, data, and information systems

Different models of digital Governance are:

1. Broadcasting/Wider Dissemination Model
2. Critical Flow Model
3. Comparative Analysis Model
4. Mobilisation and Lobbying Model
5. Interactive-Service Model

Wider Dissemination Model

The Broadcasting or Wider Dissemination Model is a specific approach within the broader scope of e-Governance. This model focuses on using electronic media, particularly broadcasting channels such as radio and television, to reach a wider audience and disseminate information effectively.

Principle:

The model is based on dissemination / broadcasting of useful governance information which is in the public domain into the wider public domain through the use of ICT and convergent media.

The strength of the model rests upon the fact that a more informed citizenry is better able to judge the functioning of existing governance mechanisms and make an informed opinion about them. As a consequence, they become more empowered to exercise their Rights and Responsibilities.

The widespread application of this model corrects "information failure situations" by providing people with the relevant information relating to the governance sphere to make an informed opinion and impact governance processes.

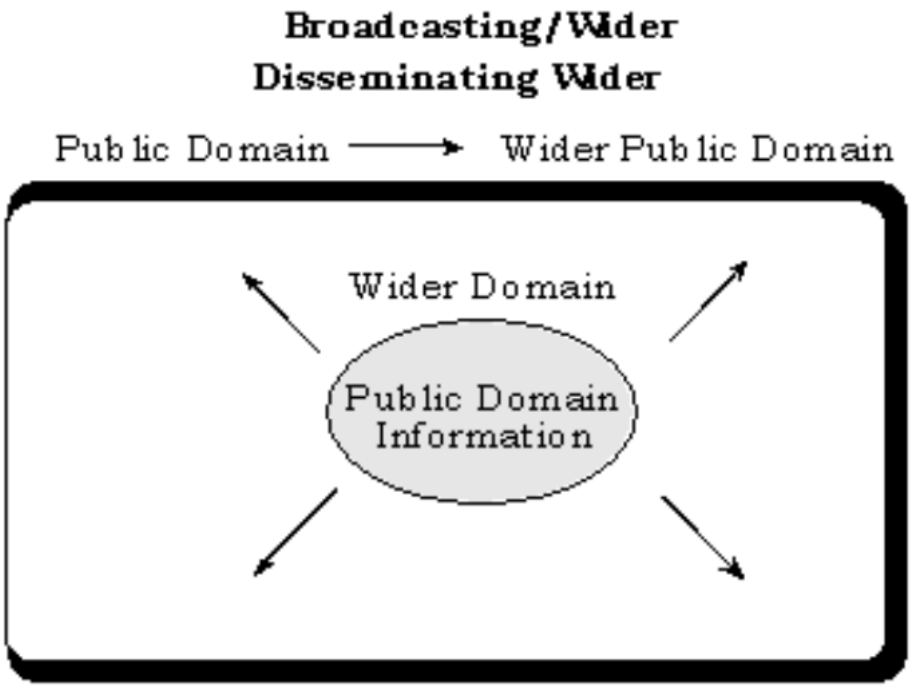
Objectives:

The primary objective of the Broadcasting/Wider Dissemination Model is to leverage electronic media to communicate government information, policies, and services to a broad audience. It aims to enhance transparency, improve public awareness, and foster citizen engagement.

Applications:

This model could be applied in the following possible ways:

- Putting Governmental Laws and Legislations online.
- Making available the names, contact addresses, emails, fax numbers of local/ regional/ national government officials online.
- Make available information pertaining to Governmental Plans, Budgets, Expenditures, and Performances online.
- Putting key Judicial decisions which are of value to general citizens and create a precedence for future actions online.



Evaluation:

Evaluating the effectiveness of the wider dissemination model involves assessing factors such as the reach of the disseminated information, the engagement of the target audience, the extent of adoption or implementation of innovations, and the overall impact on knowledge dissemination and application. Evaluation methods may include surveys, interviews, usage statistics, and case studies.

Various projects based on this models are :

- India: Directory of Official Websites of Government of India

National Informatics Centre (India) is the official website of the Government of India which makes available Ministerial Information, Indian Laws and Legislations Online, Contact Details etc. online for public access.

- Brazil:Official Government website

  The website provides comprehensive information on Brazilian government as well as links to integrated citizen services.

- South Africa: The PIMS Monitor

  Idasa's Political Information and Monitoring Service (PIMS) providing an easy-to-use reference and record (with plain-language summaries) of all bills, acts and policy documents that pass through parliament. The Monitor aims to help audience engage with democracy, intervene in the legislative process and make submissions to parliament in South Africa.

- Global: Earth Negotiations Bulletin

A reporting service which keeps informed citizens worldwide about global environmental negotiations, processes and decisions. It has a great value for citizens and even government officials in developing countries to keep track of global negotiations taking place in the West and be more informed about them.

- Online Newspapers, Newsgroups and Portal Sites - these are instrumental in bringing key political and other important information into the wider public domain.

Overall, the wider dissemination model of digital governance prioritizes accessibility, inclusivity, and equity in the use of digital technologies and information, aiming to bridge the digital divide and empower individuals and communities to fully participate in the digital society.

2..Explain in brief about e governance initiative in usa.

ans:: The President's Management Agenda (PMA) for E-Government, initiated by President George W. Bush in 2001, aimed to optimize ICT investments, streamline federal spending, reduce paperwork, and enhance government responsiveness. It emphasized citizen-centricity, result orientation, and market-based approaches. The agenda prioritized reducing citizen access to government information and services to just three clicks on the internet.

Agendas for E-Governance

a.The Federal Enterprise Architecture for E-Governance
The e-governance agenda highlighted the importance of Federal Enterprise Architecture (FEA), which gives a detailed view of government operations, how they're done, and how IT supports them. FEA, overseen by the Office of Management and Budget (OMB), provides a method for monitoring, analyzing, and managing federal IT investments. It facilitates collaboration and communication across different levels of government and ensures alignment with business goals.

b.Implementation of President's Management Agenda

The e-governance initiative will enable implementation of various parts of Presents Management Agenda (PMA):

Budget and performance integration, strategic management of human resources, competitive procurement of services and bidding, and improved financial performance. E-payroll, e-training, (e-learning), e-clearance, and e-procurement.

Performance Measurement in E-Governance Implementations

- Quarterly scoreboard used for monitoring e-governance performance in federal agencies.
- Standard requirements mandate fulfillment of at least three criteria:
    1. Integration of citizen services through Fistgov.gov and call/service centers.
    2. Minimization of business burden via data reuse or XML transmission.
    3. Intergovernmental deployment of e-grants or geospatial outsourcing.
    4. Achieving productivity improvements through CRM, SCM, KM, and ERP.
- "Green" score awarded for meeting all criteria; "Yellow" for partial achievement; "Red" for significant gaps.
- Agencies such as Department of Education, Department of Energy, and Department of External Affairs improved from "Red" to "Yellow."
- NSF upgraded from "Yellow" to "Green."
- Agencies awarded "Green" score include Department of Housing and Urban Development, Department of Interior, Department of Justice, Department of Agriculture, Department of Labor, Department of Transportation, Environmental Protection Agency, NASA, NSP, and Social Security Administration.

E-government accomplishment in USA

The following e-governance projects throw light on the e-governance initiatives in USA:

- FirstGov.gov: Provides access to 200 million pages of info from 22,000+ federal and state government websites; aims for government service within three clicks.
- Volunteer.gov: Connects citizens with over 100,000 volunteer opportunities in government hospitals and federal organizations.
- Recreation.gov: Offers online access to 22,000+ national parks and recreation areas.
- Gov.Benefits.gov: Grants access to 400+ government benefit programs, serving 500,000 monthly visitors.
- IRS Free Filing: Enables 80+ million Americans to file taxes online for free.
- Integrated Acquisition Environment (IAE): Provides contractor performance data and federal acquisition material.
- Business.Law.gov: Offers small businesses legal info, compliance tools, and online transactions.
- Regulation.gov: Provides data on government regulations, garnering 2.6 million hits in January 2003.
- GoLearn.gov: E-training initiative with 6+ million hits, offering 2000+ courses and resources for carrier development.
- E-payroll: Consolidates payroll from 22 centers, saving over a billion dollars.
- E-clearance: Integrated database for security clearance process, with 99% clearance available electronically.

Conclusions:

This case study highlights the significant IT enablement initiatives underway within the United States government. It outlines various web-based services provided to citizens, showcasing the government's commitment to leveraging technology for public service delivery.

3.**Explain E-Government Life Cycle with various phases.**

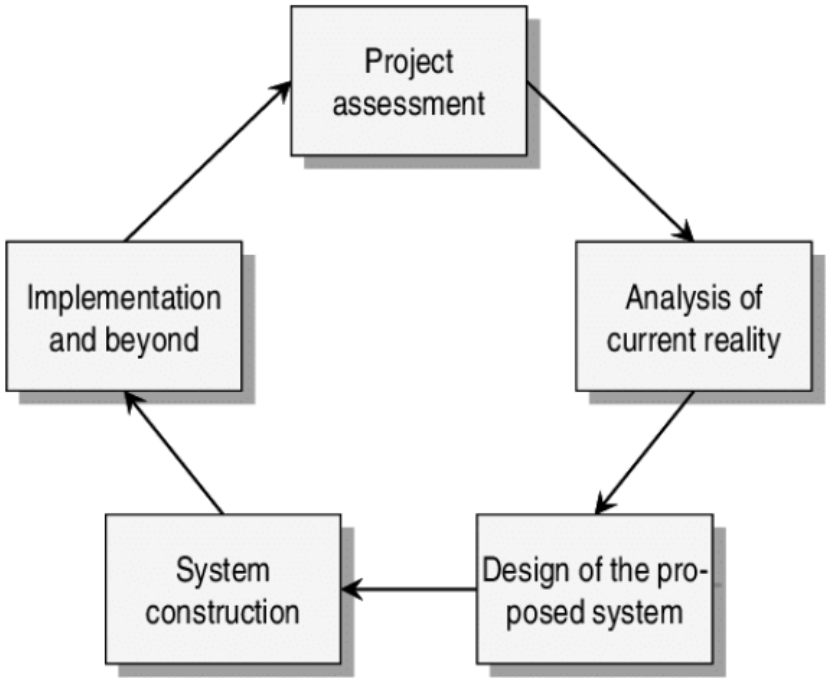
ans::The life cycle of E GOVERNMENT:

E-Government development projects typically consist of five stages; project assessment, analysis of current reality, design of the new system, system construction, and implementation and beyond.

Project Assessment:

Needs Assessment: Identify the needs and requirements of citizens, businesses, and government agencies that can be addressed through e-government.

Strategic Planning: Define the goals, objectives, and overall strategy for the e-government initiative. Align the project with the broader goals of the government.



Analysis of current reality:

Process Analysis: Examine existing government processes and identify areas that can be digitized or improved through technology.

System Design: Develop a detailed plan for the e-government system, including the architecture, functionalities, and user interfaces.

Design stage:

The design stage of the proposed new situation consists of setting objectives related to the above mentioned dimensions of the new system – putting together the different objectives for the new system to meet.In this stage issues of software and hardware need to be dealt with.Work processes are also necessary to take into account from a design perspective, and not just the front-end processes, but also the underlying processes.

System construction:

System construction consists of the process and activities in acquiring any new IT, undertaking detailed design of the new e-government system (for example a system installation), building it, testing it, and documenting it.

Implementation:

Pilot Implementation: Conduct a pilot implementation to test the system on a small scale, gather feedback, and make necessary adjustments.

Full Implementation: Roll out the e-government system on a larger scale, ensuring that it meets the needs of a broader user base.

System Operation: Monitor and manage the day-to-day operation of the e-government system to ensure its stability and reliability.

Monitoring Compliance: Ensure that the e-government system complies with relevant laws, regulations, and standards.

GROUP-B

1.Define Network Infrastructure. Write about some of them.

Ans: Network infrastructure is the foundation of interconnected devices, software, and communication mediums that enable data exchange within organizations or between entities. It supports modern communication and facilitates the functioning of various technologies and applications.

Some of them are:

Hardware Components:

Routers: Devices that direct data traffic between different networks.

Switches: Devices that connect devices within the same network, facilitating communication.

Firewalls: Security devices that monitor and control incoming and outgoing network traffic based on predetermined security rules.

Servers: Systems that provide resources or services to other computers in the network.

Modems: Devices that modulate and demodulate signals to enable communication between computers and the internet.

Network Protocols:

TCP/IP (Transmission Control Protocol/Internet Protocol): A fundamental suite of protocols that governs data transmission on the internet.

HTTP/HTTPS (Hypertext Transfer Protocol/Secure): Protocols for transmitting web pages and securing web communication.

DNS (Domain Name System): Resolves domain names to IP addresses.

SMTP/POP/IMAP (Simple Mail Transfer Protocol/Post Office Protocol/Internet Message Access Protocol): Protocols for email communication.

Network Topologies:

1. Star Topology: Devices connect to a central hub or switch, simplifying management but relying heavily on the central hub.
2. Bus Topology: Devices share a common communication line, making it simple but susceptible to single-point failures.
3. Ring Topology: Devices form a closed loop, allowing equal access but prone to disruption if one device or connection fails.
4. Mesh Topology: Devices interconnect, providing redundancy and multiple paths for data transmission, ensuring high reliability but requiring more resources to set up and manage.

Cloud Networking:

Virtual Private Networks (VPNs): Securely extend a private network across the internet. Cloud Service Providers (CSPs): Offer infrastructure, platforms, and software as services over the internet.

Internet of Things (IoT):

IoT Devices: Connected devices that communicate and share data over a network.

Edge Computing: Processing data closer to the source (IoT devices) rather than relying solely on centralized cloud servers.

2.Difference between E-Government and E-Governance.

Differentiate E-Government and E-Governance.

ans::

Aspect	E-Governance	E-Government
Definition	The utilization of ICTs to enhance governance	The use of ICTs by government agencies for
	processes, systems, and policies.	delivering public services, conducting government
		operations, and engaging with citizens.
Focus	Focuses on the processes and mechanisms of	Focuses on the governmental institutions and
	governance, including citizen participation,	agencies responsible for governing,
	transparency, and efficiency.	administering, and providing public services.
Scope	Encompasses both public and private sectors,	Primarily pertains to government entities and
	as well as civil society organizations.	their interactions with citizens and businesses.
Implementation	Implementation involves the integration of ICTs	Implementation involves the adoption and use
	into various governance processes and systems.	of ICTs within government agencies for
		administrative and service delivery purposes.
Objectives	Aims to improve service delivery, increase	Aims to enhance government efficiency,
	transparency, promote citizen participation, and	effectiveness, transparency, and accessibility,
	streamline government operations.	and foster citizen engagement and participation.
Examples	Online service delivery, e-participation	Government websites, online portals for
	platforms, open data initiatives, digital	accessing services, electronic voting systems,
	signatures, etc.	electronic tax filing systems, etc.

3.How can we achieve good governance through e-governance models? Explain.

ans::Achieving good governance through e-governance models involves leveraging technology to enhance transparency, efficiency, accountability, and citizen participation in governance processes. Here's how e-governance models can contribute to good governance:

1. Transparency: E-governance facilitates greater transparency by making government processes, decisions, and data more accessible to the public. Through online portals, open data initiatives, and electronic records, citizens can easily access information about government activities, budgets, policies, and performance.
2. Efficiency: E-governance streamlines administrative processes and reduces bureaucratic hurdles through automation and digitalization. Electronic workflows, online forms, and digital signatures enable faster decision-making and service delivery, reducing delays and inefficiencies in government operations.
3. Accountability: E-governance promotes accountability by enabling better tracking and monitoring of government actions and expenditures. Through tools like performance dashboards, audit trails, and online reporting mechanisms, stakeholders can hold government officials accountable for their actions and ensure responsible use of public resources.
4. Citizen Participation: E-governance fosters greater citizen engagement and participation in governance processes. Online platforms for feedback, consultation, and e-participation empower citizens to voice their opinions, contribute ideas, and collaborate with government agencies on policy development, planning, and decision-making.
5. Inclusivity: E-governance promotes inclusivity by bridging the digital divide and ensuring equitable access to government services and information. Efforts to improve digital literacy, provide multilingual support, and offer alternative channels for communication ensure that all citizens can engage with government processes regardless of their socio-economic status or technological proficiency.
6. Responsive Governance: E-governance enables governments to respond more effectively to the needs and demands of citizens. Real-time data analytics, social media monitoring, and online feedback mechanisms allow governments to identify emerging issues, track public sentiment, and adjust policies and services accordingly in a timely manner.
7. Continuous Improvement: E-governance facilitates continuous improvement in governance processes through data-driven decision-making and performance evaluation. By collecting and analyzing data on service delivery, citizen satisfaction, and operational efficiency, governments can identify areas for improvement and implement targeted interventions to enhance governance outcomes over time.

By leveraging e-governance models to promote transparency, efficiency, accountability, citizen participation, inclusivity, responsive governance, and continuous improvement, governments can work towards achieving the principles of good governance and better serve the needs and interests of their citizens.

4.Write short note on Computerization in Andra Pradesh.

ans::The National Informatics Centre (NIC), Andhra Pradesh State Unit, has computerized the operations of the Andhra Pradesh State Trading Corporation (APSTC). This involved hardware procurement, network setup, system analysis, software development, and user training.

The Andhra Pradesh State Trading Corporation Limited (APSTC) serves as an approved terminal operator at the Cargo Air Terminal Complex in Hyderabad. Its primary functions include managing import cargo, commercial goods, and incoming unaccompanied baggage, as well as handling export cargo and outgoing unaccompanied baggage (personal effects). The APSTC cargo terminal complex comprises four major sections: Import godown, Export godown, Unaccompanied Baggage (UB) godown, and Accounts section.

Import of Commercial Goods/Unaccompanied Baggage This involves the following steps:

- Cargo/unaccompanied baggage unloaded by airlines at Hyderabad Airport.
- Transported to APSTC's import godown under customs escort.
- Goods verified against Import General Manifest (IGM) or air waybill by APSTC.
- Cargo presented for examination/inspection to customs upon request.
- Customs clearance based on documents prepared by Importer/CHA.
- APSTC bills for handling and other services.
- Charges collected from importer/consignee.
- Gate pass prepared and goods delivered to importer by APSTC.

Export of Commercial Goods/Unaccompanied Baggage The entails the following steps:

- Exporter deposits commercial cargo/unaccompanied baggage at export godown.
- APSTC verifies goods based on documents provided by exporter.
- Cargo presented for customs inspection/examination by APSTC upon customs request.
- Customs clears export cargo based on exporter's documents.
- APSTC raises bills for handling and services, paid by exporter.
- Export cargo handed over to airlines under customs escort by APSTC.

The import process at APSTC involves the receipt and custody of commercial cargo and unaccompanied baggage arriving at Hyderabad airport, transported to APSTC's import godown under customs escort. Upon arrival, godown officials verify the goods against Import General Manifest (IGM) or Airway bills, recording pertinent details in registers. Subsequently, the importer files a bill of entry with customs, triggering an inspection requisition. Upon customs clearance, APSTC's Accounts Section generates bills for handling, storage, and other services, which the importer settles before receiving the goods. Conversely, the export process sees exporters or their agents depositing cargo at APSTC's export godown, verified by the godown manager and recorded in registers. Customs scrutiny follows, leading to a requisition for goods examination. Upon clearance, APSTC prepares the cargo for shipment, issuing appropriate documentation and raising bills for services rendered. Exporters settle these charges and receive the necessary clearance from APSTC before their cargo is released.

The computerized system at APSTC automates data flow and procedures, operating on a client-server architecture with Visual Basic and MySQL server. It enables seamless data transmission between sections over LAN, with dedicated screens for data entry and updating. Security measures include user name recording, data deletion prohibition, and manager-only data modification. The system retains old challan numbers and allows entry of bank challan

payment details for APSTC service charges. It incorporates two independent modules for old and new charging policies of STC, ensuring flexibility and compliance.

5.Explain Take-Grant Model.

ans::

The Take-Grant model is a security model used in e-governance to control access to resources within a system. It operates based on a set of rules that govern the transfer of permissions (or grants) between entities (such as users or processes) and resources.

In this model, entities can "take" permissions from other entities if they have the appropriate privileges. They can also "grant" permissions to other entities, passing along permissions they already possess. However, there are rules governing these actions, such as limitations on who can take or grant permissions, and under what circumstances.

The Take-Grant model helps ensure that access to resources is properly managed and controlled, preventing unauthorized access and maintaining the security of the system. It's particularly useful in e-governance contexts where access to sensitive government data and systems must be carefully regulated to protect against breaches and misuse.

6.Explain Cloud Governance with proper diagram.

ans::Cloud governance refers to the comprehensive framework of policies, procedures, controls, and best practices adopted by organizations to effectively and securely utilize cloud computing services.

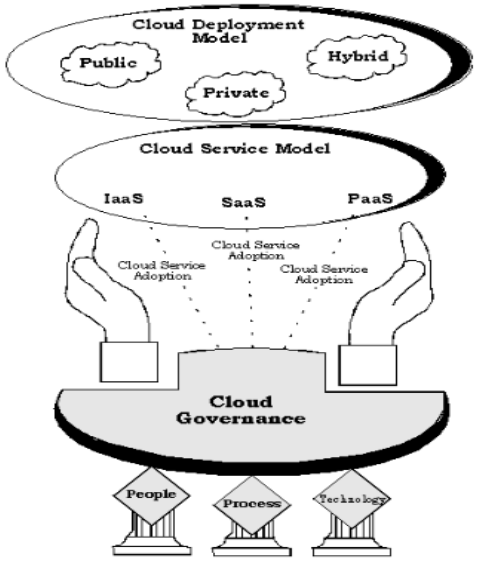


Figure:Cloud Governance

It encompasses various components such as:

1. Cloud Strategy and Adoption: Developing a strategic plan aligned with business objectives to determine the appropriate cloud deployment and service models.
2. Cloud Service Provider Selection: Establishing criteria for selecting reliable and secure cloud service providers based on performance, security capabilities, compliance, and contractual terms.
3. Data Governance: Implementing practices to ensure the confidentiality, integrity, and availability of data stored and processed in the cloud, including data classification, access controls, encryption, and data retention policies.
4. Security and Compliance: Implementing security controls and compliance measures to protect cloud environments from cyber threats and ensure adherence to regulatory requirements.
5. Service Level Agreements (SLAs): Negotiating and managing SLAs with cloud service providers to ensure agreed-upon service levels, performance metrics, and support commitments are met.

Cloud governance is essential for organizations to mitigate risks, optimize costs, and maintain compliance while leveraging the benefits of cloud computing.

7.What is Security Standards? Write about any two Security standards.

ans::Security standards are guidelines and best practices established to ensure the confidentiality, integrity, and availability of information, systems, and processes within an organization.
Two security standards are described as below:

1.HIPAA (Health Insurance Portability and Accountability Act)

HIPAA (Health Insurance Portability and Accountability Act) is a critical U.S. standard designed to safeguard the privacy and security of patient information within the healthcare sector. Enacted in 1996, HIPAA establishes stringent regulations to protect sensitive medical data from unauthorized access, disclosure, and misuse. It mandates that healthcare organizations, providers, and their business associates adhere to strict protocols for the storage, transmission, and handling of electronic health information. HIPAA's provisions include guidelines for data encryption, access controls, audit trails, and breach notification procedures to ensure the confidentiality, integrity, and availability of patients' protected health information (PHI). By setting robust standards for the electronic exchange of health data, HIPAA aims to foster trust between patients and healthcare entities while promoting the seamless flow of information necessary for quality care delivery and medical research.

2.GDPR (General Data Protection Regulation)

GDPR (General Data Protection Regulation) is a comprehensive set of regulations enacted by the European Union (EU) to safeguard the personal data of EU citizens. Effective since May 2018, GDPR applies to any organization, regardless of its location, that handles the personal information of individuals within the EU. It imposes strict requirements on data controllers and processors, including provisions for obtaining consent, transparent data processing practices, data breach notifications, and the rights of individuals to access, rectify, and erase their personal data. GDPR aims to enhance individuals' control over their data while promoting accountability and transparency among organizations handling personal information, ultimately fostering trust in the digital economy.

Some other security standards are:

3.CIS Controls (Center for Internet Security Controls)

4.FISMA (Federal Information Security Management Act)
5.CIS Controls (Center for Internet Security Controls)

8.Explain Mobilization and Lobbying Model with proper example.

ans:: The mobilization and lobbying model involves rallying supporters and engaging policymakers to influence public policy decisions and legislation in favor of a particular cause or interest group.

Principal:

The mobilization and lobbying model is a strategic approach used by interest groups, advocacy organizations, or individuals to influence public policy decisions and shape legislation. It involves mobilizing supporters through various means, such as grassroots campaigns, social media activism, and direct engagement, to advocate for specific policy changes or legislative action. Lobbying entails direct interaction with policymakers, including meeting with legislators, providing expert testimony, and participating in policy discussions, to persuade them to support the interests of the group or organization. By combining grassroots mobilization with targeted lobbying efforts, advocates aim to build public support and exert pressure on policymakers to enact desired policy reforms.

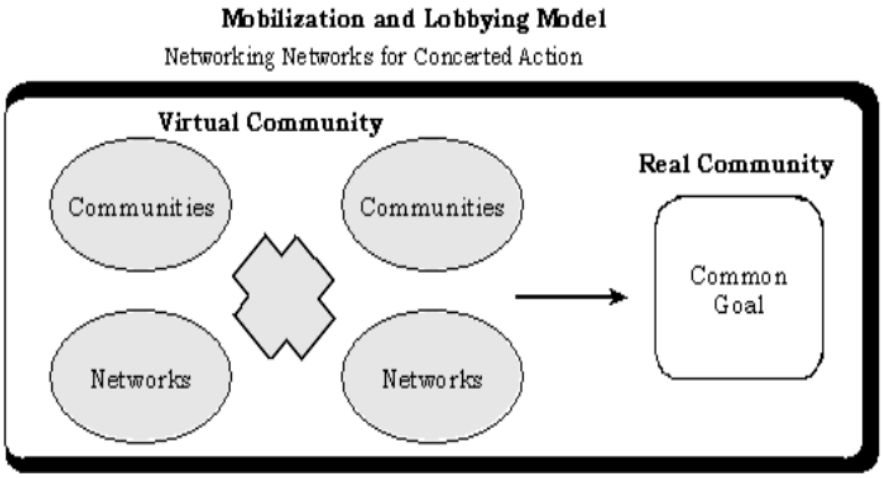


Figure:Mobilization and Lobbying Model

Example:

A scenario where a group is advocating for stricter environmental regulations:

Mobilization: The group mobilizes environmental activists, concerned citizens, and local organizations through online petitions, community events, and educational workshops. They raise awareness about environmental issues such as air and water pollution, deforestation, and climate change, urging people to take action.

Lobbying: The group organizes meetings with elected officials, policymakers, and industry representatives to advocate for stronger environmental regulations. They present scientific evidence, case studies, and public opinion polls demonstrating support for measures like carbon emissions reduction targets, renewable energy incentives, and stricter pollution controls. They also collaborate with other advocacy groups and environmental experts to draft policy proposals and amendments to existing legislation.

Through mobilization efforts to engage the public and lobbying activities to influence decision-makers, the group aims to push for policies that prioritize environmental protection and sustainable development, ultimately leading to a healthier and more sustainable future.