# CURRENT AFFAIRS PROGRAM 2023
# PRE-CUM-MAINS
# DEC 2022 – PART-4
# KURUKSHETRA – DEC 2022
# E-GOVERNANCE

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## 1. GOOD GOVERNANCE

- **As per second ARC**, Good governance **aims** to provide an environment in which all citizens irrespective of class, caste, and gender can develop to their full potential.

- **The four pillars** on which the edifice of good governance rests, in essence are:
  A. **Ethos** (of service to the citizens)
  B. **Ethics** (honesty, integrity and transparency)
  C. **Equity** (treating all citizens alike with empathy for the weaker sections)
  D. **Efficiency** (speedy and effective delivery of service without harassment)

- **As per UNDP**, "Good governance is, among other things, participatory, transparent and accountable. It is also effective and equitable. And it promotes rule of law. Good governance ensures that political, social and economic priorities are broad consensus in society and that the voice of poorest and the most vulnerable are heard in decision making over the allocation of development resources"

- **8 Major Characteristics of Good Governance**


## 2. E-GOVERNANCE

- **Syllabus:** E-governance- applications, models, successes, limitations, and potential

- **Important Quotes:**
  » "E-governance is instrumental while good governance is fundamental"

- **Introduction**
  » E-governance is generally understood as the use of ICT at all levels of the government. It has the ability to transform government's relations with citizens, businesses, and other arms of government.

  » **Broad goals of e-governance**
    - Better service delivery to citizens
    - Ushering in transparency and accountability.
    - Empowering people through information

- Improved efficiency within government
- Improved interface with business and industry

- **Scope of E-Governance:**
  - E-governance facilitates interaction between different stake holders in governance. The interactions may be described as follows:
    1. **Government to Government (G2G):**
       - Redtapism and slow processes promote unfair practices and rent seeking attitude within the officials and are major sources of corruption.
       - **Use of small e-technology innovations** have been introduced to **transform government practices and day to day operations**.
         - A simple e-governance solution of **electronic files** (e-files) has improved efficiency in the system. It ensures that every movement of file is time stamped and it also creates a log of delays and time taken to take decisions and hence is used by government officials to **keep a track of inefficiencies and malpractices withing various departments.**
         - Another example is that of an **Aadhar linked biometric attendance** which is linked to salary and performance reports of employees. This ensures high professional standards with in the employees.

    2. **Government to Citizens (G2C)**
       - This is the most widely used e-governance interaction. Government has created various interface using technology between government and citizens. This benefits the citizens through delivery of efficient services. The JAM trinity has further strengthened the public service delivery with digital means.
       - E.g. Online portals for various scholarships; social pension schemes etc.

    3. **Government to Employee (G2E)**
       - Use of ICT has made interaction of government with its employees fast and efficient and has also increased satisfaction levels of employees.

    4. **Government to Business (G2B)**
       - Government has implemented many technological solutions to promote ease of doing business and thus help businesses to contribute to economic growth and employment.
         - E.g.
           - Use of SPICe+ and Agile Pro by Ministry of Corporate Affairs (MCA) saves the time and effort required for a nascent company incorporation. This form combines various services like PAN/TAN/Director Identification Number/ GSTN etc.
           - Online Single Window System for all construction permit
           - NOCs and other certificates are issued through online Building Permission system.

- **Government Initiatives and Roadmap for E-Governance**
  - The formulation of **National E-Governance Plan (NeGP)** by GOI in 2006 gave momentum to e-governance agenda in India. It comprised of 27 mission mode projects and 8 components.
  - **Various policy** initiatives have been taken to support core and support infrastructure.

- » The major core infrastructure components are State Data Centres (SDCs), State Wide Area Networks (SWAN), Common Service Centres (CSCs) etc.

- **But**, the **NeGP** suffered from a number of shortcomings.
  - » To deal with these limitations and to give real thrust to e-governance, government launched **Digital India Mission** in 2015. Under this '**e-Kranti**' program was approved with the vision of "Transforming e-Governance for Transforming Governance" The thrust areas of e-Kranti outlined in **Digital India** are:
    i. **Technology for Education: e-Education**: All schools will be connected to broadband. Free WiFi will be provided in all secondary and higher secondary schools (coverage would be around 250,000 schools)
    ii. **Technology for Health:** E-Healthcare would cover online medical consultation, online medical records etc.
    iii. **Technology for farmers:** Real time price information, online access to inputs, loan, relief payment, market (e-NAM).
    iv. **Technology for Security**: Mobile based emergency services and disaster related services provided to citizens on real time basis
    v. **Technology for Financial Inclusion**: Mobile banking, micro ATM programs and CSCs/Post Offices contribute to financial inclusion
    vi. **Technology for Justice**: E-Courts, E-Police, E-Jails strengthens interoperable Criminal Justice System.
    vii. **Technology for Planning:** National GIS Mission mode project to facilitate GIS based decision making for project conceptualization, planning, design and effective implementation.
    viii. **Technology for Cyber Security**: **National Cyber Security Coordination Centre** would be set up to ensure safe and secure cyber-space within the country.

- **New Age Analytics, AI and ML in E-Governance:**
  - » E-Governance is evolving with new technologies. Many dashboards are powered by analytics and show real time data on many government schemes, present comparative statistics between states and districts. This gives more info to citizens who can then hold government accountable. For e.g. the **Champions of Change Dashboard** developed by NITI Aayog ranks all 112 Aspirational Districts in India across several developmental indicators (Education, Health, Agriculture, Skills ,Water Resources) etc.
  - » Another example is Career platforms built by the GoI for career readiness through training in demand technologies and areas. These platforms are built using the power of artificial intelligence. They recommend course to students based on the interests and existing knowledge and skills of the students i.e. these platforms adapt themselves according to the students' levels and personalize the learning for students.
  - » Blockchain technologies are being used by Telangana and TN government to digitize land records.
    - The National Informatics Center (GoI) has set up Centre of Excellence (CoE) in Blockchain technology with an objective to promote its use and facilitate rapid adoption & on-boarding of blockchain based solution.

- **Various Models of E-Governance:**
  - » Depending on the conditions and governance requirements, **Professor Arie Halachmi** suggested **five important models of e-governance viz.** –
    1. The **Broadcasting Model** of dissemination of useful governance information to have informed citizenry.
    2. The **Critical Flow Model** of routing information of critical value to the targeted audience.
    3. The **Comparative Analysis Model of assimilation of best practices** in the field of governance for developing countries to empower their people.

4. The **E-Advocacy/Mobilisation and Lobbying Model** of adding the opinions of virtual communities so that the global civil society can have an impact on global decision-making processes; and
5. The **Interactive-Service Model of individuals' direct participation** in governance processes to bring in greater objectivity and transparency in decision-making processes

- **Model for E-Governance Implementation**
  - » GoI has come up with a **similar model as that of global model** for its e-Governance Implementation. This model has **four stages** like Information, Interaction, Transaction, and Integration.
    - In the **first stage**, **Information** is collected and is made available to the Citizens in the form of websites etc., This information is regularly collected and updated.
    - The comes the **communication (interaction)** stage, that is, the citizens will be able to download forms, contract, officials and make appointments and requests online which previously would have been only possible with long queues near counters.
    - The **third stage** is **transaction** stage where the citizens can do transactions with the government online, i.e. pay bills, reserve tickets, finalize decisions etc., without going to government offices.
    - The **fourth** and final stage is the **integration (transformation)** stage where a total seamless integration of e-functions and services across administrative and departmental boundaries takes place.

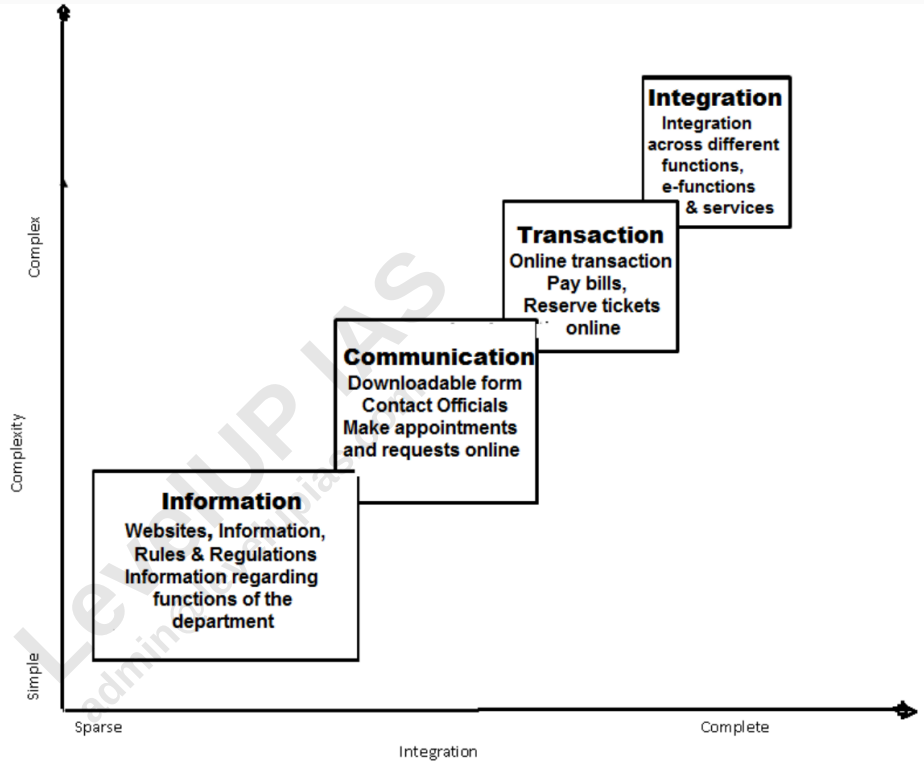


**Figure 1:** The Dimensions and stages in e-Governance

- **Challenges of e-Governance:** The challenges to e-Governance can be categorized under the following heads:
  i. **Infrastructural Challenges:** High speed internet is still not available in the remotest corners of the country. Availability of computer/ smart phones with the poorest section of society is still missing.

  ii. **Social**
    - **Language:** Ensuring the accessibility of the government service in local language is a major challenge.
    - **Digital Literacy**: Absence of digital literacy among a large segment of the population as well as government personnel is a major issue.

- **Lack of awareness** about e facilities among citizens.

iii. **Technical**
- Portability and compatibility of existing softwares and programs with the new technology
- User friendliness of government websites is another major problem.
- Privacy and Security of Individual's personal data.

iv. **Economic**
- The cost of implementation and maintenance are a major challenge in India. Funding, management of change and reusability becomes an issue.

- **Way Forward:**
  - Building **e-readiness i**s the success factor for the e-governance implementation in India.
    - **7 areas that needs focus**: Infrastructure; Institutions; Laws; Leadership and commitment; Human Capacities; Technology and Data Systems;
    - **Mobilize more funds** as the e-governance sector has high Return on Investment.
  - **Explore newer technologies in e-governance:** new technologies like **5G, AR/VR, IOT** are going to present more opportunities for e-Governance. These would have transformative implications for various sectors including health, education, crime control, energy efficiency etc.
  - At the same time there is a need to **set up governing principles for these new technologies**. These principles should ensure that they are equitable, accessible, and fair.
  - **Focus on more regional languages** while providing e-governance services.
  - **Evaluation of e-Projects**: Study the successes and failures. This will help in replicating the successes and bridging the gaps for failure.

- **Conclusion:**
  - Early adoption of E-Governance and continuation upgradation with changing technology would ensure that India becomes a major force to reckon with in digital governance for social impact.

## 3. DIGITAL INDIA

- **Why being discussed?**
  - » Recently PM Modi inaugurated Digital India Week 2022 (July 4 - 9, 2022) under the Digital India Program with the aim of promoting Ease of Doing Business and Ease of Living (July 2022)

- **Example Questions**
  - » Digital technologies offer new opportunities for businesses, workers and citizens to engage in economic activity and to enhance efficiency. In this light discuss the key initiatives under Digital India Program to empower rural masses. [15 marks, 250 words]
  - » Weak Cyber Security Framework is a major hindrance in the success of Digital India Program. Elaborate [10 marks, 150 words]

- **Introduction**
  - » Digital India program is a visionary initiative that aims to transform India into a **digitally empowered society** and **knowledge economy** by leveraging the power of information technology. **Inclusive growth** and **empowerment of ordinary citizens** is at the core of Digital India.
  - » The Digital India initiative **is promoting e-governance** and is thus ushering in transparency and accountability, empowering people through information, improving efficiency within government and improving interface with business and industry.

- **Key Initiatives Under Digital India Program** can be divided into broad categories like digital identity, digital infrastructure, Digital India for better governance, Digital India for Employment Entrepreneurship and Empowerment, Digital India for Make in India, Initiatives for Emerging Technologies and Cyber Security.

**1. Digital Identity**

- Digital identity is the key to unlock access and potential of Digital Indian Program. Aadhaar has ensured a unique digital identity for almost all residents in the country.
- This has led to curbing of corruption by promoting Direct Benefit Transfer.

2. **Digital Infrastructure** is crucial for success of Digital India
   - **i. Bharat Net** (BharatNet) is aimed at connecting rural areas with high speed internet by building optical fiber network connecting all 2.5 lakh gram Panchayats
   - **ii. National Knowledge Network**
     - It is state of art network promoting collaboration and exchange of knowledge among educational and research institutions.
     - Some NKN enabled applications are: Virtual Classrooms, NDL, NPTEL, various Grids (like Cancer Grid, Brain Grid, Climate Change Grid) etc.
     - Ministry: MEITY
   - iii. **GI Cloud (Meghraj)**
     - Aimed at utilizing the benefits of cloud computing, accelerating the delivery of e-services in the country while optimizing ICT spending.
     - Ministry**:** MEITY
   - iv. **eSign**
     - It's an innovative initiative for allowing easy, efficient and secure signing of electronic document by authentic signer using e-KYC services.
     - eSign can ensure services like Digital locker, e-filing etc.

3. **Digital India For Better Governance**
   - i. **JAM (Jan Dhan - Aadhaar-Mobile) Trinity** for **Direct Benefit Transfer (DBT)** -
     - DBT is being used by more than 400 schemes and is estimated to have saved more than 1 lakh crore in last five years. This is due to enhanced efficiency of service delivery and elimination of leakage and corruption.
   - ii. **Digital Payments** - BHIP-UPI Platforms, Rupay debit cards etc have promoted the digital transactions. Digital transactions reduce the chances of money-laundering, use of fake currencies etc.
   - iii. **UMANG** is a single aggregator app which aims to provide 1200 digital services on a single mobile app. Currently, around 307 services can be accessed through the app in 13 different languages.
   - iv. **Digital Delivery of Services** has spread and is now available through a dedicated portal or on UMANG mobile app. Some of these digital services include:
     - **National Scholarship Portal** is becoming a one stop solution for all scholarship needs of students. It has more than 1 crore registered students
     - **Jeevan Pramaan** is another digital service which has simplified the lives of elderlies by easing the verification of pensioners using Aadhaar digital identity.
     - **eHospital and Online Registration Service** aims to ensure easy access of doctors to patients.
       - So far, it has been implemented in more than 300 hospitals.
     - **Soil Health Cards** scheme provides information on soil health digitally.
     - **e-NAM** networks the existing APMCs and create a unified market for agri-commodities in the country.
     - **DigiLocker** has ensured elimination of the need of carrying physical documents to avail a government service. Various important documents like PAN card, driving license, Adhaar etc can be stored in digital form on DigiLocker.
       - It is a secure cloud platform to store, share and verify documents and certificates.

- **eVisa**: complete online application - no intermediary facilitation required.
- **eCourts**: To keep track of status of cases going on in different courts across India.
- **National Judicial Data Grid** is a comprehensive database which provides information on cases pending, cases disposed and cases filed in both High Court and District Court Complexes in areas of civil and criminal cases.
- **Government e-Market Place** (GeM) is a transparent online market place for government procurements.
    - This has brought transparency in government procurements but has also created opportunities for MSMEs to sell their products to government departments or PSUs.

v. **eGramSwaraj**:

- The government has been implementing eGramSwaraj under e-Panchayat Mission Mode Project, as part of the Digital India program, in the country to **revamp the functioning of Panchayats**.
- It addresses **various aspects of Panchayat functioning** viz. planning, accounting, budgeting including online payments through eGramSwaraj-PFMS Interface for services delivery.

4. **Digital India for Employment, Entrepreneurship & Empowerment**
    a. **Digital Service Delivery near door steps (Common Service Centres) (CSCs)**
        - More than 3.06 lakh digital service delivery centers, spread across 2.10 lakh Gram Panchayats of the country has been created to provide **access to digital services especially in rural areas** where availability of computers and internet were negligible, at an affordable price.
        - These centers have also led to **empowerment of marginalized section**s of society by **creating jobs** for 12 lakh people and by promoting **rural entrepreneurs**, out of which 61,055 are women.
        - CSCs have also undertaken **Stree Swabhiman** initiative to create awareness about menstrual health and hygiene among rural women.
            - Under this initiative more than 300 micro Sanitary Pad Manufacturing Units have been opened in rural areas.
            - This has not only created livelihood opportunities for rural women but have also made low cost sanitary pads locally available.
        - These CSCs would also serve as **business correspondents for banks**.
    b. **Digital Literacy for the Masses**
        - DISHA and PMGDISHA

    c. **BPO Promotion in Small Towns**
        - To create employment opportunities for local youth and to secure balanced regional growth of IT and ITES sector in each state, **India BPO Promotion Scheme** and **North East BPO Promotion Scheme** have been launched under Digital India Program.
        - Today more than 230 BPOs have come up in about 100 small towns of India across 20 states and 2 UTs.

**5. Digital India for Make in India**
    **a. Promotion of Electronic Manufacturing**
        - **With a target to reduce imports, government has taken a number of initiatives to promote electronic manufacturing in India.**
        - **The Phased Manufacturing Programme for mobile phones was launched with the goal of widening and deepening the mobile handsets and component manufacturing ecosystem in India.**

- **Similarly, budgets have seen an increase in allocation for Modified Incentive Package Scheme.**

6. **Initiatives in Emerging Technologies**
    - **Centres of Excellence (CoE)** are being set up in the areas of IoT, Large Area Flexible Electronics, Tactile Graphics for Visually impaired, IPRs, Fintech, Virtual Augmented Reality, Medical tech, Block Chain etc.

7. **Cyber Security**
    - Aimed at creating an inclusive safe and secure cyber space for sustainable development, the **Cyber Swachhta Kendra** (Botnet Clearing and Malware Analysis Center) has been set up to provide alerts to users for preventing losses of financial and other data.
        - The Centre is providing the facilities to clean botnets in realtime. National Cyber Coordination Centre, has been made operational in 2017.
    - **Operator**: India Computer Emergency Response Team (CERT-IN)

- **Key Challenges hindering Digital India**
    - » **Absence of Digital Infrastructure in many remote areas**
        - Inspite of all the above efforts, the quality of digital services available in rural areas is still not very effective and a lot of infrastructure improvement is needed.
    - » **Complex or absent Regulatory Framework**
    - » **Import Dependency for new equipment**
        - This sometimes make the equipment more expensive and unaffordable
    - » **Increasing Cyber Security Risks:**
        - With increasing digital connectivity is increasing the risk of cyber-attacks. Industry today is already taking a toll in the form of business risks, reputational damage, disruption of services and potentially public safety hazards.
        - Cyber Space has become the fifth domain of the warfare.
        - **Unique Characteristics** of the Cyber Space, namely **offence dominance**, **difficulty in attribution of attacks**, **development of cyber weapons** by states and **use of non-state actors to camouflage their actions** are making cyber space more and more vulnerable.

    - **Right to Privacy and Data Protection** regime is not well established yet
        - Digital Personal Data Protection Bill is still in the draft stage.

- **Way forward**
    - » **Concerted efforts to facilitate and promote process of digitalization** including upgrading digital infrastructure, augmenting capacity to develop standards and testing for conformity assessment, developing capacities to harness emerging technologies and digital payments, permeate the economy has the potential to create a trillion-dollar digital economy by 2025.
    - » **More focus required on digital manufacturing**
        - Making PLIS more attractive
    - » **Strike a careful balance between data privacy and Innovation**
        - Undue regulation may hinder innovation and hence the growth of digital India.
    - » **Beef of our cyber security preparedness** by a more orchestrated and well-coordinated action play by Government, Industry and end users.
        - **Sectoral regulators and National Cyber Security Machinery** need to partner and devise institutional arrangements to respond to challenges and enable better preparedness to withstand/counter attacks.
        - **Strong implementation of Cyber Security Frameworks** developed by RBI, IRDAI etc.

- **Increased coordination** between **Sectoral CERT** and **State CERTs** to bolster efforts of **National CERT**.
- **Step up Cyber Security Preparedness** in India including in large enterprises, SMBs and PSUs
    - **Digital Literacy and Cyber Security Awareness** is the key to cyber security and it needs to spread.
- **Security by design** and not treating security as a bolt-on feature and as a cost centre is the paradigm shift that we need to drive. This mindset change is needed in the entire ecosystem from developers, solution architects, business-large, medium, small and start-ups, academia and government.

- **Conclusion**
    - » India is today among the top three global economies of digital consumers. The Digital India programme is generating pathways to a future powered by technology and achieving a high growth of our Digital Economy. Though there are some challenges, they are not insurmountable if we make concerted efforts to make Digital India a success.

## 4. OTHER RECENT INITIATIVES FOR E-GOVERNANCE AND DIGITAL INDIA

### 1) E-GOVERNANCE INITIATIVE LAUNCHED DURING DIGITAL INDIA WEEK 2022 (JULY 2022)

#### A) MERI PEHCHAAN (NATIONAL SINGLE SIGN-ON) (NSSO):

- It is a user authentication service in which a single set of credentials provide access to multiple online applications or services. This offers major benefits for both users and application administrators.
- For users, it eliminates the need to repeatedly prove their identities to different applications and hold different credentials for each application and also helps identify the real applications as opposed to fake ones.
- To the **application owner** it helps save time, effort and cost to build the authentication systems for every service independently

#### B) BHASHINI:

- It aims to enable all India easy access to the Internet and digital services in their own language and increase the content in Indian languages. It is an artificial intelligence led language translation platform.

#### C) DIGITAL INDIA GENESIS (GEN-NEXT SUPPORT FOR INNOVATIVE STARTUPS):

- It is a deep tech startup platform by MeitY with an outlay of 750+ crores.
- It envisages impacting and considering 10,000+ tech start-ups over the course of the next 5 years, especially from Tier-II and Tier-III cities of India which will be equipped with the right tools and backed by a conducive infrastructure for starting and scaling up. It will pave the way for more equal startup ecosystem, one that evenly represents the aspirations of our ambitious entrepreneurs for inclusive techno-socio economic development of India.

#### D) CHIPS TO STARTUP (C2S):

- Chips to Startup is a Rs 76,000 crore initiative launched in Dec 2021 to **enhance semiconductor and display manufacturing in India**. The goal is to position India as a worldwide centre for hi-tech production and recruiting multinational chip manufacturers.
- It also aims to train 85,000 number of high-quality and qualified engineers in the area of Very large-scale integration (VLSI) and Embedded System Design as well as result in development of 175 ASICs (Application Specific Integrated systems)

- MeiTY has sought applications from 100 academia, R&D organizations, start-ups and MSMEs under C2S program.

## 2) E-GOVERNANCE INITIATIVE IN DEFENCE SECTOR (OCT 2022: PIB)

- **Why in news?**
  - » Defence Minister Rajnath Singh launched several digital initiative of Defence Accounts Department (DAD) during its 275th Annual Day celebration in New Delhi on Oct 01, 2022. The Defence Minister also commended the DAD for taking forward the 'Digital India' vision of the Government, stating that the new initiative will increase transparency and efficiency in the functioning of the Department.
- The Initiatives included:
  - » **SPARSH Mobile App**
    - System for Pension administration (Raksha) App
    - It will ensure pensioners access and reach to important functionalities of the SPARSH portal through their mobiles.
      - Ministry of Defence implemented the portal for pensioners of the Armed Forces as well as defence civilians.
  - » **Pay System for Agniveers**
    - The system will facilitate pay management for Agniveers, who will soon join the Armed Forces through the government's Agnipath Scheme. It will be a specialized and secure portal to ensure claim processing and pay-roll management of Agniveers.
  - » **Defence Accounts Receipts and Payment System (DARPAN)**
    - The DARPAN is a unified solution for third party bill payment and accounting. It's real-time processing will provide comprehensive insights into various accounting and financial performances.
  - » **PAO-Bharti**
    - Through the initiative, which was part of the Raksha Mantri Excellence Awards this year, the armed forces personnel will be able to get real time data related to pay & allowances and claims. The users will also be able to register their complaints through phone and get the replies within 48 hours.

## 3) NCW LAUNCHES DIGITAL SHAKTI 4.0 FOCUSING ON MAKING WOMEN DIGITALLY SKILLED AND AWARE (NOV 2022: SOURCE: PIB)

- **Digital Shakti** was started in June 2018 to help women across the nation to raise awareness level on the digital front. Through this project, over 3 lakh women across India have been made aware of cyber safety tips and tricks. It is helping women in reporting & redressal mechanisms, data privacy and usage of technology for their benefits.
- **Digital Shakti 4.0**: It is focused on making women **digitally skilled and aware to stand up against any illegal/inappropriate activity online**. This initiative was launched in collaboration with CyberPeace Foundation and Meta.

## 5. M-GOVERNANCE

- **Introduction:**
  - » M Governance is a sub-domain of e-Governance. It utilizes mobile technologies - SMS, Mobile Apps, Interactive Voice Response System, Geo-Location and others - to improve access to public service delivery and enhance accountability and citizen participation in policy-making and execution.
  - » In short, "**M Governance** can be referred E-Governance delivered through mobile devices, especially smartphones"

- **Advantages:**
  - » This **bypasses the need of traditional physical network** for communications and collaborations.
  - » They are also **cheaper** as well as **accessible** in most of the rural areas.
    - India has a tele density of more than 85% and has more than 82.5 core internet subscribers.
  - » With the coming of **5G**, the internet speeds are also expected to enhance drastically.

- **M-Governance in India:**
  - Government of India aims to utilize the massive reach of mobile phones and harness the potential of mobile applications to enable easy and round-the-clock access to public services, especially in rural areas and create unique infrastructure as well as application development ecosystem for m-Governance in the country.

  - **Digital India** and '**e-Kranti**' are steps towards promoting M-Governance

  - The **MeiTY** developed and notified **framework for Mobile Governance in Feb, 2012.** Key measures laid down are:
    - » All Government websites would be made mobile compliant, using the "One Web" approach.
    - » Open Standards shall be adopted for mobile applications for ensuring the inter-operability of applications across various operating systems and devices as per the Government Policy on Open Standards for e-Governance.
    - » Uniform/ single pre-designated numbers (long and short codes) shall be used for mobile based services to ensure convenience
    - » All Government Departments and Agencies shall develop and deploy mobile applications for providing all their public services.

  - To ensure adoption and implementation of the framework in time bound manner the government developed the **Mobile Service Delivery Gateway (MSDG)**.
    - » MSDG provides government wide shared infrastructure and services to enable rapid development and mainstream and deploy M-Governance services.
    - » It reduces the total cost of operation of m-Governance services by providing a common pool of resources aggregating the demand for communication and e-governance services.
    - » MSDG enables delivery of public service over mobile devices through various mobile channels, such as SMS, USSD, IVRS, and mobile applications.
    - » It enhances interoperability across various public services.

- **There are four major M-Governance Models**: G2C; G2E; G2G; and G2B (same as E-governance)
- **Shining Examples**
  - AarogyaSetu App
  - Digilocker App
  - GST Rate Finder App
  - mParivahan App
  - MyGoV App

- **Key factors hindering M-Governance**:
    - **Push Factors:**
        - Level of technological and infrastructure development.
        - Role of governments and telecoms
        - Regulatory framework

- **Pull Factors:**
    - **Limited awareness and readiness and lack of necessary** skills among the common users to access these services through mobile devices.
        - Many of them rather prefer to visit government service delivery kiosks where they are helped by others.
    - **Low level of digital literacy** is also to be blamed.
    - L**anguage -** Most of the citizens are still not comfortable with English language.
    - **A large number of independently working applications**: A common citizen finds it difficult to install, manage and access a significant number of applications to carry out a variety of tasks and access services from different stakeholders.
        - UMANG approach is praiseworthy and welcome from this standpoint.
    - **Good quality, smooth functioning smartphones** are still expensive and are out of reach of a lot of people. The inferior configuration phones sometimes act as a barrier/hinderance in accessing M-Governance.

- **Way Forward:**
    - **Emphasize on the pull side**: In line with global experience, India too has **over emphasized activating the push side of the equation** by leveraging mobile technology, setting up infrastructure, and making m-governance available, without understanding and strengthening user demand. The **focus should shift to developing services** wherein citizens can readily recognize value of using such services.
        - Improving awareness of m-governance and digital literacy is also crucial.
        - More services in **local languages** need to be brought to reach more people.
        - India also needs to encourage production of electronic equipment and smartphones within the country to ensure quality products at affordable prices.

- **Conclusion:**
    - Only when both Push factors and pull factors are taken into consideration, the M-Governance would be able to reach its full potential in India.