Potential Of Digital Initiative In India: A Case Study

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Abstract:-

The digital India programme is an initiative of honourable Prime Minister of India. The vision of the program is focus on the nine pillars of growth area. The digital India drive is a dream project of the India govt to remodel India into a knowledge economy & digital empowered society. It is mission of "Power to Empower''. The initatitive was taken to ensure that the citizen are getting engaged in the digital innovation process which impt for economic growth in stainable development of countries. It is necessary to address certain challenges in digital India are digital illiteracy ,lack of infrastructure, cyber crime ,net neutrality, financial implication and lack social cohesion. These challenges need to be addressed in order to realize the full potential of this programme. Hence, an attempt has been made in this paper to realise the global as well as domestic challenges that might hinder the successful implementation of the program and suggest some feasible remedies to deal with the same.

KEYWORDS: Digital India, Digital initiative, Challenges

Introduction:

Cyber extension/ICT tools/digitized information system are gaining more and more importance now a day as they create interest in the users there by resulting in effective communication and transfer of technologies. Here the applicability and usage of some of the ICT tools to make the present learning approach effective timely access to information is becoming more and more crucial for survival in every sphere of life. In the present competitive word, moving towards what we perceive as knowledge society the access to right information at anytime, anywhere about anything has gained high signifance. This of course does not mean that the earlier societies were not aware of aware of importance of information or were not knowledgeable. The information played very important role even in ancient time when hunters and gathers of the subcontinent evolved into agri-pastoral society domesticated plants, animal, inventing, and tillage. They were knowledge enough to evolve into present day society. The crucial difference now is the speed with which one can access information, the magnitude of available information and removal of geographical boundaries to access information. The developments in computer technology itself revolution the world and the sudden growth in telecommunication methodologies provided the necessary synergy to create a catastrophic change breaking every boundary and connecting planet into one giant network of information and knowledge.

The convergence of computers and communication technologies has opened up vast arena of internet and intranet .one cannot ignore the silent revolution taking place in the communication system in rural India, thus paving way for cyber extension initiative..Concept of village information kiosks is fast spreading to blocks/mandals and villages empowering Indian farmers to digital access of vital information available through the internet.

In such a scenario the demand for authentic and credible digital information sources has raised in all sectors of life e.g in agriculture sector be it research, education and extension, end to end value chain development requires quick access to diverse type of information. The e- granth is one such project initiated by NAIP project under ICAR to enable digital access to vast information in the national Agricultural Research system (NARS).

Definition:

What is Digital Education in India? Digital Education is **a technique or method of learning which involves technology and digital devices**. This is a new and broad technical sphere which shall help any student attain knowledge and gain information from any corner across the country.

To improve the learning outcomes and improve the access and quality of learning, Technology offers solutions, in the form of digital education. National Mission on Education through ICT (NMEICT) is a major initiative of Ministry of Human Resource Development (MHRD) to infuse digital education solutions to improve the access to quality contents and also to improve the learning outcomes. Even though various initiatives have been taken up under NMEICT programme, the major currently ongoing initiatives like SWAYAM, SWAYAM Prabha, National Digital Library (NDL), e-Yantra, FOSSE, Spoken Tutorials, and Virtual Labs are being implemented by various higher educational institutions.[1]

What are digital initiatives in higher education?

Digital Education is a technique or method of learning which involves technology and digital devices. This is a new and broad technical sphere which shall help any student attain knowledge and gain information from any corner across the country. It is believed that Digital Education in India is the future of education and learning.

Various channels have been defined by the Government of India for a widespread of the sources and means to provide education to different corners of the country. Discussed further in this article are the channels and initiatives taken up by the Government for Digital Education in India.

Aspirants can also know the advantages, objectives and challenges of the digital India campaign launched by the Government of India at the linked article.

This initiative **provides remote access to Labs in various disciplines of Science and Engineering**. Students can also strengthen their concepts by performing Virtual labs experiments at a place and time of their choice, outside lab hours.[3]

Traditional Education: method is also known as conventional educational education as conventional education is still widely sat in silence. In traditional methods were ensured that students were rewarded for their efforts used class periods efficiently and exercised clear rules to manage students' behaviour. They were based on estd custom that had been used successfully in educational institution over many years. The traditional have not developing their critical thinking, problem solving and decided many skills.

As per Liu (2014) the traditional teaching is most direct & effective method. Teachers control the students effectively .Bruner (1982) traditional methods of teaching teachers is limited the resource is scare and learning is passive, but the knowledge is well –formed and departed from real life.

Why Digital Learning

1. Digital learning is for more interactive and miserable then voluminous textbook or on-sided lectures they provide better context, a greater sense of perspective and more engaging activities then traditional education methods.

2. Learning tools & technology like social learning platform make it easy for teacher to create and manage group. The shift to digital learning can approximate the benefits of tuition while free up time for teachers to addresses individual & small group needs.

3. Digital learning tools & technology enable educator to rapidly share information with other educators in real-time.

4. The explosion of free and open content and tool has created an environment of sharing economy.

5., Digital learning tools & tech fill the gaps where traditional classroom teaching falls behind.

E-Library Services:

e-library services is a multi-disciplinary concept that shares various branch of computer science including data management, retrieval, library sc ,document management information system, the web, image processing & artificial intelligence.

1. Online research services allowing patrons to pose question and get answer from library.

2. Access to technology petting "Zoos'' to try out new devices.

3 Circulation services: the circulation on document and reservation of documents is done through digital mode.

4. Reference services: in this services queries are answered using all possible sources

5. Online reservation system: user can reserve any books using online reservation system and user is automatically informed through e-mail about reservation of documents.

6. Recommend any item: library user can recommend any material which is not available in library for purchase.

7. CAS: library users are informed about new arrival by e-mail on regular basis

8. Inter -Library loan: the document not available in library is borrowed on loan from other library.

9. Orient & information: library is going to orientation program to ensure user make most effective use of the resources.

10. SDI: Users are kept them abreast of latest knowledge in their filed.

11 Audio/Visual multimedia sections: the multimedia and internet facilities are made available to user and can have better access to information in digital format

Digital Smart Learning Environments

1. **Cloud Computer**:- is the on-demand delivery of IT resource over the internet with pay-at- go pricing. You can access technology service such as computing power, storage & database. It is used for data backup, disaster revealing, email, virtual desktop & software develop. It is used by financial services to detect frauds.

2. **Internet of Thing:-**it is physical object that connect to the internet .it can be a fitness tracker, a thermostat a lock or appliance ever a light bulb. It is just like as shoe that track your heart beats.

3. **Artificial Intelligence**:-development of computer system able to perform task normally requiring human intelligence e.g speech, decision making, and translation to language.

4. **Quantum Computer**:- is type of computation whose operation can harms the phenomena of quantum machinery such as superposition interference and entanglement. Device that perform quantum, computations are known as quantum computer

5. **Mixed reality**:-it is real world environment and a computer generated on physical & virtual objects may co-exist in mixed reality environment & inclusion in real time. It is used in design education, entertainment, military training, healthcare, product content management human –in-the –loop operation

6. **Black chain Technology**. It is an advanced data base mechanism that allow transparent information sharing within a business network. It store data in blocks that are linked with chains. It share information amongst all parties that access it via an application access in terms of reading & writing may be unrestricted or derestricted.

7. **Big data analytics**: it is comprise bags amounts of structures and unstructured data which can offer implant insights when analytics are applied. It does this quickly and efficiently. In health case it used as patient record, insurance plan, participation and vaccine information. It is mostly used in health cases education, insurance artificial intelligence retain & manufacturing to know improve process processes system and profitability.

GOVT DIGITAL ININTATIVE

Digital India was launched by the Prime Minister of India Narendra Modi on 1 July 2015, with an objective of connecting rural areas with high-speed Internet networks and improving digital literacy. The vision of Digital India programme is inclusive growth in areas of electronic services, products, manufacturing and job opportunities. It is centred on three key areas – digital infrastructure as a utility to every citizen, governance and services on demand, and digital empowerment of citizens.

Indian NARS is a huge repository of knowledge and information on crop science. Horticulture, resources management, animal science, agricultural engineering, fisheries, agricultural extension and over past few decades. Digital resources, digital services and technologies continue to create new opportunities, new challenges and new expectative

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AGRIMARKET APP

The mobile application has been developed with an aim to keep farmers abreast with the crop prices and discourage them to carry-out distress sale. Farmers can get information related to prices of crops in markets within 50km of their own device location using the AgriMarket Mobile App. This app automatically captures the location of the farmers using mobile GPS and fetches the market prices of crops which fall within the range of 50km. The prices of agri commodities are sourced from the Agmarknet portal. Currently, the apps is available in English and Hindi languages.

CROP INSURANCE MOBILE APP

Crop insurance mobile app can be used to calculate the insurance premium for notified crops based on area, coverage amount and loan amount in case of loanee farmer. It can also be used to get details of normal sum insured, extended sum insured, premium details and subsidy information of any notified crop in any notified area.

Website. http://mkisan.gov.in/downloadmobileapps.aspx

E-PANCHAYAT

e- Panchayat is an e-Governance initiative for the rural sector providing comprehensive software solution attempting automation of Gram Panchayat functions. It is a platform for panchayat representatives to connect with rest of the world, which aims to bring out the local voices by empowering the local communities to showcase and share local social, cultural and economic practices, stories and challenges.

Website. http://epanchayat.in

ENAM

National Agriculture Market (NAM) is a pan-India electronic trading portal which networks the existing APMC (Agriculture Produce Marketing Committee) mandis to create a unified national market for agricultural commodities. The NAM Portal provides a single window service for all APMC related information and services. This includes commodity arrivals and prices, buy and sell trade offers and provision to respond to trade offers, among other services. While material flow (agriculture produce) continues to happen through mandis, an online market reduces transaction costs and information asymmetry.

Website. http://www.enam.gov.in/NAM/home/index.htm

E-PATHSHALA

Developed by NCERT, e-Pataskala showcases and disseminates all educational e-resources including textbooks, audio, video, periodicals and a variety of other print and non-print materials through website and mobile app. The platform addresses the dual challenge of reaching out to a diverse clientele and bridging the digital divide (geographical, socio-cultural and linguistic), offering comparable quality of e-contents. All the concerned stakeholders such as students, teachers, educators and parents can access e-books through multiple technology platforms i.e. mobile phones (android, IOS and Windows platforms), and tablets (as e-pub) and on web through laptops and desktops (as flipbooks).

Website. http://epathshala.nic.in

KISAN SUVIDHA

Kisan Suvidha is an omnibus mobile app developed to help farmers get relevant information instantly. The app provide information on various details such as weather, market prices, seeds, fertilizers, pesticides, agriculture machinery, dealers, agro advisories, plant protection and IPM practices etc. Other unique features like extreme weather alerts, market prices of commodity in nearest area and the maximum price in state as well as in India have been added to empower farmers in the best possible manner.

Website. http://www.kisaansuvidha.com/

NATIONAL SCHOLARSHIP PORTAL (NSP)

NSP is a one-stop solution for end-to-end scholarship process right from the submission of student application, verification, sanction and disbursal to end beneficiary for all the scholarships provided by the Government of India. This initiative aims at providing a Simplified, Mission-oriented, Accountable, Responsive & Transparent 'SMART' System for faster & effective disposal of Scholarships applications and delivery of funds directly into beneficiaries account without any leakages.

Website. http://scholarships.gov.in/

SWAYAM

SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy. This is done through an indigenous developed IT platform that facilitates hosting of all the courses, taught in classrooms from 9th class till post-graduation to be accessed by anyone, anywhere at any time.

Website. https://swayam.gov.i

DIGITIZE INDIA PLATFORM

Digitize India Platform (DIP) is an initiative of the Government of India under the Digital India Programme to provide digitization services for scanned document images or physical documents for any organization. The aim is to digitize and make usable all the existing content in different formats and media, languages, digitize and create data extracts for document management, IT applications and records management.

Website. https://digitizeindia.gov.in

EBASTA

In line with the Government's Digital India initiative, this project has created a framework to make school books accessible in digital form as e-books to be read and used on tablets and laptops. The main idea is to bring various publishers (free as well as commercial) and schools together on one platform. In addition to the portal, a back-end framework to facilitate the organization and easy management of such resources has been developed, along with the web-based applications that can be installed on tablets for navigating the framework.

Website. https://www.ebasta.in

IMPRINT

(IM packing Research innovation & technology) supported from IIT +IISc   joint
 initiative to address major science & engineering challenges the India must address
1. Creative new education policy
2. Road map to purse engineering challenges

SAKSHAT:

one   stop   education   portal   lunched   in   2006.to   look   after   he   content   advisory committees for the respective subject such as IGNOU, Delhi University, Kendriya viayalanka

Atal Ranking of Institution   innovation.

Achievement (ARIIA).it is an imitative to   systemically rank all major higher education institution and univ in India.

DISI Locker: it is for issuance & verification of document certificate in a digital way.

SWAYAM PRABHA:

It is group of 32 DTH channels to telecasting of high quality educational programme using GSAT-15 satellite. Everyday there will be new content and then repeated more in 5 times a day. The content are providing by IITs, UGC, CEC, IGNOU, NCERT, NIDS, portal is handed by INFLIbNET.

National academic Depository (DAD).

It is an online store house of all academic awards, it provides two interoperable digital depositaries VIZ CDSL venture limited (CVL) and NSDL database management

National Digital Library in India:

All digital libraries that stare information (metadata) about books, article, video, thesis and other education material. It provides single window search facility to access digital content existing in India.

E-Shoda Sindhu;

It is merge of three consortia imitative namely UGC-INFLNET ,digital library consortia, NLIST and INDEST-AICTE.it provide access to peer reviewed Journals, bibliography, citation and factual database in different disciplines to the research & academic community.

Virtual Labs:

It is an initiative of   MHRD. This project is a consortium activity of twelve participatory institution and IIT Delhi.

e- Yantra:

It is initiative by IIT Bombay sponsored by MHRD.

Talk to a teacher program:

It is program coordinated by IIT Bombay. It has also project in virtual lab, hap tics and   natural language processing.

E- acharya:

It is portal to host all e-content project developed/funded under NME through ICT. There are more to project on e-consortia under NME_ICT.

E-kalpa:

It is project on creating digital learning environment for designed also called e-kalpa.

FOSSEE:

Free/Libra & open source software in education. It is tool to improve quality of education in country. It is mission on education trough (ICT ((MHRD).

Vidwan:

It is database of scientists/researcher working in academic institution. It is maintained & updated by Inflibnet.

Spoken Tutorial:

It is talk to teacher activity of NME

BAADAL:

it is cloud orchestration & virtualization management software by MHRD

Global Initiative of academic networks:

It is aim is to pool talent of scientist and entrepreneurial internationally to encourage their engagement with institution of higher educating in India.

National institute of Ranking framework:

NIRF launched by MHRD on 2015.it frame the rank institution across the country.

NPTEL:

It was initiated by seven IIT along with IIS, Bangalore in 2003.it cover five core disciplines namely civil engineering, computer, and electric courses in web/.video format.

OSCAR:

open source course animated repository of web-based interactive animation simulation that   refer to learning objects.

Shodh Gangotri:

Res scholars/research super rise and requested to deposited electronic version of approved synopsis by scholars for registry themselves for PhD program. Synopsis in shodh Gangolri. Once the full text thesis is submitted for a shodh Gangolri to shodh Ganga.

Virtual learning environment:

e-resource to several disciplines taught at UG & PG level. It is ested by ILLL, univ of Delhi in 2012.

Text Transcription of Video content:

this project provides transcription of all videos published by NPTEL.

SOS Tools:

This tool s used to analysis of system and solving problem by student of SC, S.S

E-PG Pathshala:

It is initiative of MHRD under through ICT executed by UGC. The curriculum is based on 70 subjects across the discipline of S.S, art, fine

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Challenges of Digital Education

- lack of infrastructure
- inadequate internet penetration
- slow standard policy
- no standard policy
- lack of social cohesion
- teacher training
- issue of parenting
- national knowledge network
- increased financing
- parent teachers training
- security Ricks/cyber crime
- increase accessibility
- digital illiteracy

Conclusion:

Online education has come to the rescue of the cause of education. As technology is changing fast. What is good today may become obsolete later. It is true that private telecom players in India are doing great but they cannot be fully depended to fulfil social commitment especially in areas where revenue potential is low. The need of the day is to build an exclusive fully firewalled India Internet. While every digital transformation initiative will have its own specific goals, the main purpose of any digital transformation is to improve your

current processes. To successfully transform, keep the momentum of any initiative moving toward your ultimate goal. To do so, continually address the main drivers of digital However there are several challenges of online education that is to use technology more efficiently and to transform business drives innovation keeping ahead of competition.

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