

A PRESENT SCENARIO OF E-INFORMATION SERVICE IN RURAL INDIA

Netai Mandal

Librarian,

Midnapore College (Autonomous)

Paschim Midnapore, West Bengal, India.

ABSTRACT

Information is power and power is information. Without information there can be no growth. In the age of globalization man try all necessary things (Information) always around him and he like only one click. In the developed country most of the people are use e-information so they are developed but in the developing country like India most of the villages people are use traditional information service. In this modern age India government and many private organizations provide e-information service in rural village's areas. This paper presents the definition of e-information service and the difference between traditional and e-information service and shows the difference e-information service project have been undertaken by the Government and other private organization for the promotion and development of India and this paper also comments the impact and barrier of e-information service in rural India.

KEY WORDS: *Information Service, Traditional information service, e-information service, Information and communication technology,*

1. INTRODUCTION

Now information is penetrating into rural India as well, because without its presence there, we cannot think about development of the entire country. India is in the midst of a knowledge revolution, complemented by the opening up of entirely new-vistas in information and communication technology. Information and Communication Technology (ICT) has emerged as an effective facilitator in the development of any society and is a prime driving force in the growth of rural economies. The Rural Market of India is showing an impressive growth largely due to changing lifestyle patterns, better communication network and rapidly changing demand structure of consumers of rural area. Rural people are less knowledgeable rather than their city counterparts. Thus, technological advancement is necessary for every nook and corner of India.

2. EXISTING SCENARIO IN RURAL INDIA:-

India is one of the most populous nations of the world with a population of approximately 1,210,193,422 Billion people (72% of its population) inhabit approximately 6, 38,365 villages (Census, 2001). The country has a diverse social and cultural profile

where each region has different ecology, language and traditions so India is call unity and diversity. India has a paradoxical legacy of a heritage characterized by locally governed units and a federal structure attributed to its colonial past. In Indian villages every second person is illiterate, and majority of them are small farmers, artisans or laborers. Poverty affects 22% of the rural citizens (Census, 2001)

3. WHAT IS INFORMATION SERVICE?

An Information Service is a service, which provides (serves) data/knowledge/information somehow and is an integrated set of components used for gathering, processing, storing and communicating multiple types of information for improved societal and organizational efficiency.

Information service components cover academic and professional disciplines spanning the fields of business and computer science. Typical information service includes data about people, software, hardware and procedures. Collected digital data is used for study and analysis.

Information service include between technology and algorithmic processes within the boundaries of an enterprises such as library, Organizational interaction with technology and vice versa, between society and technology.

4. WHAT IS E-INFORMATION SERVICE?

E-Service (or ‘eService’) is a highly generic term, usually referring to ‘the provision of services via the Internet (the prefix 'e' standing for ‘electronic’, as it does in many other usages), thus e-Service may also include e-Commerce, although it may also include non-commercial services (online), which is usually provided by the government.’ (Irma Buntantan & G. David Garson, 2004: 169-170; Muhammad Rais & Nazariah, 2003: 59, 70-71).

‘E-Service constitutes the online services available on the Internet, whereby a valid transaction of buying and selling (procurement) is possible, as opposed to the traditional websites, whereby only descriptive information are available, and no online transaction is made possible.’ (Jeong, 2007).

Information Services belongs to the services industry. It is based on the actual or potential information needs of the user, and affords a series of interconnected information collection, processing and provision services.

5. TRADITIONAL INFORMATION SERVICE VS. E-INFORMATION SERVICE:-

5.1 Traditional Information Services:

Traditional Information Services has been in existence for a long time. In general, Traditional Information Services depends partially on Information Technology. In other

words, it utilizes Information Technology for the sole purpose of rendering Services better. Traditional Information Services has its own gigantic infrastructure and institutional presence, as embodied in libraries and archives.

5.2 E-information service:

A system which stores information from internal and external sources to facilitate better decision making. The data is collated in a database and the user can access the files to glean better information as a basis for decision. The system may include fiscal, social, economic, scientific or technical data geared to support a firm's operations.

6. E-INFORMATION SERVICE PROJECTS AND MAJOR INITIATIVES IN INDIA:-

Gramdoot, Aksh Optifiber, Rajasthan: Aksh is a fiber optic cable company with its core competence in lay down and maintenance of cable. It has the license to lay down the cables in the rural areas. The bandwidth delivered by Aksh supports a large variety of services (including video interactions) which will lead to increase the level information exchange in between the people living in several areas of rural India

TNCDW (Tamil Nadu Corporation for Development of Women): The project is aimed at social and economic empowerment of women in Tamil Nadu state. It establishes a relationship with the citizens by encouraging them to participate in its various programs on income generation, vocational training, discussions, etc.

Akshaya, Kerala : Akshaya is a project of Kerala government. It began with an e-literacy campaign & the target of teaching basic computer skills to at least one person in every family. Malappuram is India's first e-literate district.

E-Cooperatives and CoopNet : It is an Internet enterprise development programme for fostering agricultural and rural industries. This network gives agricultural development with respect to resources use, inputs use, harvesting of water resources, marketing channels, storage facilities, distribution channels, value addition, market information, and a regular monitoring network system.

E-Mitra : E- Mitra is Rajasthan State Government started projects in year 2002 to deploy the I.T. enabled benefits, two projects came into existence namely under E-Mitra; Lok Mitra and Jan Mitra.

- **Lok Mitra:** is an urban electronic Governance Project which was launched in Jaipur city in year 2002, which helps the citizens to pay their bills online (land, Water, Bus Tickets and BSNL) leading the citizen to save the waiting time.

• **Jan Mitra:** is an integrated electronic platform through which the citizens of Rajasthan can avail the benefit of getting the desired information regarding any Governmental Department.

e-NRICH : e-NRICH is another ICT solution that has been developed as a Community Software Solution Framework addressing the needs of rural people. Through its customizable local language sensitive interface, e-NRICH truly puts ICTs in the hands of its users. ENRICH, which was initially developed for UNESCO to facilitate intracommunity communications, was subsequently enhanced to work as a framework capable of networking communities and building collaborations between government and citizens, particularly mainstreaming the rural people who are most disadvantaged and underprivileged.

Cyan Sanchar: It is designed to bring affordable and cost effective services to rural India. It is a partnership project, between Bharat Sanchar Nigam Limited (BSNL), Government of Madhya Pradesh & IBM Business Consulting Services and Sasktel International. The objective of this project is to develop a model for sustainable expansion of telecommunication services and ICT applications in rural India.

iKisan Project: iKisan is the ICT initiative of the Nagarjuna group of companies. The iKisan.com website, to provide agricultural information online, and technical centres at village level.

Land Records Computerization: The project is a collaborative effort with Ministry of Rural Development providing funds to states for data collection, collation and site preparation etc. The States of MP, WB, Rajasthan, Maharashtra, Orissa, UP, Sikkim, Andhra Pradesh, and Pondicherry are already in an advanced stage of computerization of land records.

Panchayat Informatics : Government of India has also initiated efforts to provide ICT solutions for streamlining the functioning of panchayats to enable easy access to information and services by the common man. Some of the applications in this area include National Panchayat Portal which acts as an Information & Service delivery point for respective panchayats.

Participatory 3D modelling (P3DM): Participatory 3D modelling (P3DM) was introduced to Sasatgre, a village in the West Garo Hills in North Eastern India, as part of the IFAD supported North Eastern Region Community Resource Management (NERCRM) project in May 2003. P3DM integrates all aspects of the mapping process - participatory resource mapping, data collection and model building.

E-Purity: (Store Management Software) – the web-based store management software manages many stores of different department of Govt. Of Delhi.

Jeevan Project : This project was launched Govt. Of Delhi in 2008 which aims to redefine public service delivery through its focus on significantly enhancing the quality of services available to the citizen. The initiative includes the design and implementation of a ‘One-Stop-Shop’ Portal for the GNCTD and development of Common Service Centers (CSC) and Jeevan Data center. More than 500 citizen service centers would be created across the state, networked together with a well developed transaction oriented Portal. The Jeevan portal will also provide the facility to pay through credit card even in the CSC.

Property Registration: Property Registration Systems aims at setting quality and time standards for all registration services. Some of the implementations of Property Registration System include CARD (Andhra Pradesh), HARIS (Haryana), STAR (Tamil Nadu), PRISM (Punjab), PEARL (Kerala), ORIS (Orissa), Red (Gujarat) and CORD (West Bengal) etc.

RuralBazar: RuralBazar is an e-commerce solution developed by NIC to address the marketing needs of the rural producers. The software provides provision for simple showcasing of the products, off-line payment as well as on-line payment. It has been implemented in the States of Tripura, Goa and Tamil Nadu.

Rural Digital Services: Rural Digital Services provide a single window for all government services at village level. In the first phase of the project, the services offered include Birth/Death Registration and Certificates etc.

Rural e-seva: It was initiated by Andhra Pradesh Government to deliver e-governance facility. The centers are designed with the view to provide better governance facilities to the people of the Rural India. It is related to payment of electricity bills, telephone bills and local governmental bills to provide the benefits at their doorsteps.

Rural soft: It helps capturing monthly progress of various poverty alleviation schemes sponsored by the Ministry of Rural Development and State Rural Development Departments. The aim of this programme was to facilitate the monitoring and planning exercises in the area of poverty alleviation.

TARahaat: It was developed with the vision to bring internet facility to the rural India. It focuses on the marketing services at local levels in Punjab .The kiosks provide online & offline services information on education, prevailing opportunities in the market & other useful information for the villagers.

The Simputer project: This project grew out of the dire need for an affordable access device for the rural population .It is a low cost portable alternative to PCs, by which the benefits of IT can reach the common man. It uses simple and natural user interfaces

based on sight, touch and audio eliminating the need for IT literacy. The in built Smart Card feature enables the Simputer to be shared by a community.

The Universal Service Obligation Fund (USOF): The Universal Service Obligation Fund (USOF) of Government of India. USOF had a fund availability of Rs 14,000 crore aimed at increasing the teledensity of the sugar cane co-operative, but also to provide a wide range of information and services to 70 villages around Warana, Kolhapur, Maharashtra. The project aims in fact at giving villagers access to information in local language about crops and agricultural market prices, employment schemes from the government of Maharashtra, and educational opportunities.

E-Choupal : Each agent will add his/her profit margin, thereby increasing the cost of product. Some agents even try to block the market information. To protect farmers from such practices, the International Business Division of Indian Tobacco Company (ITC-IBD) came out with an e-government initiative called e-Choupal.

Drishtee: Drishtee is a rural model of distribution and promotional network for consumer goods and basic services. Information is provided to the users in the form of services via internet (Government of India)

Akashganga: Akashganga uses ICT to facilitate rural milk producers by integrating all the operations of rural co-operative society right from milk procurement to accounting.

First pilot model implemented at Uttarsanda Dairy Cooperative Society in Gujarat. Each farmer is given a plastic identification card. The infrastructure used to carry out these operations includes weighing balance, milk analysers and a display.

Gyandoot, Dhar, M.P: Gyandoot has been established as community-owned, technologically innovative and sustainable information kiosks in a poverty-stricken, tribal-dominated rural area of the state of Madhya Pradesh.

Jagriti E-Sewa: The emphasis of Jagriti is deployment of appropriate, affordable, scalable and sustainable technologies available in the developing countries. The project uses dial-up telephone lines. The kiosks are located in villages where there is a sizeable flow of public on a regular basis.

Tata Kisan Kendra (TKK): Tata Chemicals Ltd. came out with TKK to help farmers in states of Uttar Pradesh, Haryana and Punjab. The TKK tracks key parameters relevant to farmers, such as soil, ground water and weather on a real-time basis with the help of Geographic Information Systems (GIS).

N-Logue: N-Logue Communications Pvt. Ltd. Provides telecom and internet services in small towns and rural areas of India.. N-Logue ties up with a number of content providers such as state government, rural development ministry, agricultural ministry and

fertiliser/pesticide manufacturers. N-Logue employs WLL technology as the basis for its village-level communications.

Warana Wired Village Project: The Warana "Wired Village" project was initiated in 1998 by the Prime Minister's Office Information Technology (IT) Task Force. The stated goal of the project is not only to increase the efficiency and productivity.

Pragya Kendra : It is a Rural Common Service Centre of Govt. Of Jharkhand. The Government envisages using the Common Service Centers (CSC) for delivery of e-Government services and will encourage other value added services such as banking, micro-credits, telemedicine, e-education, entertainment, etc. to be also delivered through the Rural CSCs.

Jharnet: The State Wide Area Network is a broad band IP based e-Governance Network to cater for Data, Voice and Video services to the government departments of Govt.

BangaloreOne (B1) project : seeks to redefine public service through its focus on the common man. The vision of the B1 Project is "to provide the citizens of Karnataka.

Treasury Computerization: One of the few government sector projects to have been certified by ISO, the treasury computerization in UP is one fine example of G2G and G2C interfaces. Benefiting more than six lakh pensioners of the state the software has been implemented in all 73 treasuries of the state, and provides information over IVRS and web.

Bhulekh: The land records computerization in UP started as an application especially for farmers but with concepts such as ‘Khatauni on Web’, ‘RoR Aapke Dwar’ the project has benefited government, banks, NGOs and all other stakeholders. Implemented in all the 305 tehsils of the state, the project has been instrumental in bridging the digital divide to a great extent.

Government to Citizen (G2C) and Government to Business (G2B) services :This service offered by the Government departments of Goa. The portal is a transparent and secured portal that provides an easy-to-use environment to the citizen and businesses to perform transactions like utility bill payments, application for services or getting information on government departments.

Vahan: Uttar Pradesh state has already computerized the major activities (Registration, Tax Collection, Permits, etc) of 19 RTO and ARTO offices. The project will be extended to all the RTOs of the state in the next couple of years.

Telemedicine: UP was among the first in the country to have started the telemedicine project. Sanjay Gandhi Post Graduate Institute of Medical Sciences and IIT Kanpur have successfully implemented the project in rural areas of the state Uttar Pradesh

Community Information Centres: The North Eastern (NE) states are characterised by their isolation from the mainstream, uneven hilly terrain, poor power supply and adverse

geo-physical environment_ unsuitable for creating ICT-based infrastructure⁴⁸⁶ internet-enabled CICs in 487 block headquarters of these states. The CIC is a joint initiative by the Department of Information Technology, MCIT and National Informatics Centre and the State Governments of eight North-Eastern States. Implementing agency National Informatics Centre and State Govt.

Information Village Research Project: Since early 1998, the M S Swaminathan Research Foundation’s Information Village Research Project (IVRP) has been facilitating knowledge sharing using both traditional and new media to increase rural livelihood opportunities in the Union Territory of Pondicherry in Southern India.⁶³ The project was largely motivated from the Foundation’s Biovillage Project that aims to equip the community with the technical expertise of exploiting natural resources sustainably.

Digital Gangetic Plane: One of the first few long-distance Wi-Fi projects in the world, the Digital Gangetic Plane (DGP) connects few villages in Uttar Pradesh to internet using wireless network. Media Lab Asia (MLA) and Indian Institute of Technology (IIT), Kanpur started creating the DGP wireless network in April 2002 and the first node was established in June 2002, “to enable low-cost and rapid deployment of portable/mobile voice and data in rural areas”.

Melur, Nellikuppam, Baramati kiosks of N-Logue : 200 kiosks Internet assisted services

From 2000 onwards n-Logue.

Bhoomi Project, Karnataka: Bhoomi is an e-governance project taken up by the Department of Revenue, Karnataka with technical assistance from National Information Centre (NIC) in Karnataka state of southern India. The aim of the project is to provide hassle free land rights, tenancy and crops (RTC) record to the farmers.

NEMMADI, project in Karnataka: The Government of Karnataka was introduced one-stop -shop‘ Citizen Service Centres, which allowed members of the public to use a range of services electronically. The Rural Digital Services (Nemmadi) initiated in 2007, to simplify procedures, ensuring transparency and improving the quality of the government’s relationship with citizens as well improving overall citizen satisfaction.

Bellandur: Developed by COMPUSOL, it is the India’s first ICT enabled Gram Panchayat e-Government solution. The software handles records of property, tax collection, birth and death certificates, and other financial details. It conducts meetings for committee members, allowing villagers to interact.

Nai Disha Educational and Cultural Society: NDLC is a non-profit organisation with a focus on community development through education; believing in the basic social principle that all children should have quality education and equal opportunities, irrespective of their birth and social status. NDLC believes that communities can change and develop only when children are empowered by education that is relevant to their own reality.

E-Uttaranchal: The project is aimed at bringing people of Uttarakhand closer, with the purpose of enabling natives to share their culture, tradition, news, and other thoughts from generation to generation. The Web site allows meetings and sessions in big cities to small villages, with “general awareness meetings” in remote villages. It helps promote quality education by providing advice through career guidance sessions.

LOKVANI: The project is a public-private partnership program that was implemented within the Sitapur district of Uttar Pradesh. The objective is to “connect” rural citizens to the strategy makers in a seamless way. The project incorporates “right to information” policy and offers services, such as grievances and petitions, land records, tender services, employment services, and information related to government schemes.

Rural Access to Services through Internet (RASI) : RASI provides Internet and voice connectivity to the rural villages of Madurai district in Tamil Nadu. RASI facilitates the

citizens with online buying and selling of commodities, besides providing voice mail, chatting, and e-mail. Villagers can get caste and birth/death certificates through the RASI system.

e-Sagu: e-Sagu is a system which provides Agriculture experts (Scientist's) advice to remote farmers through internet. It was developed at International Institute of Information Technology (IIIT), Hyderabad. Agriculture expertise and knowledge is available in India but there is gap in dissemination of expert advice to the farmers. e-sagu is a 3 tier system -Farmer at remote village, Coordinator (educated farmer in the village) who takes information from the farmers using camera and questionnaire at villages and agricultural expert at urban / city / research location.

e-Sampark : Initiative of e-Sampark project is taken up by Chandigarh Department of Information Technology. These services include Issue of Birth / Death certificate, payment of taxes, water / sewerage / electricity bills, sale of stamp papers, booking of tube-well for irrigation in rural areas.

Khet : Kheti is communication concept combining software on mobile camera phones and web 2.0 services. The current Kheti prototype provides a simple interface for a user to create a multimedia package. This can then be sent to a web site where advisors can view photos in high resolution, and then advise the farmers.

Jaikisan.org: The philosophy of this investment is based on experiences of Indian Industry and Business which could never grow in Rural India due to lack of proper infrastructure of Roads, Hotels, Power, water or time saving air travel. Jaikisan.org’s Kisan Soochna Kendra, Kisan Vyapaar Kendra, Jaikisan Foods, Jaikisan Rural Tourism, Jaikisan Media, Jaikisan Human Resource and Call centers are complete solution in this regard. This is where Jaikisan initiative differs from any other rural initiative in the country.

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Tab-1: Different types of e-information service in Rural India

| | |
|------------------------------|---|
| State/Union Territory | Initiatives covering departmental automation, user charge collection, delivery of policy/programme information and delivery of entitlements |
| Andhra Pradesh | e-Seva, CARD, VOICE, MPHS, FAST, e-Cops, AP online—One-stop-shop on the Internet, Saukaryam, Online Transaction processing |
| Bihar | Sales Tax Administration Management Information |
| Chhattisgarh | Chhattisgarh Infotech Promotion Society, Treasury office, e-linking project |
| Delhi | Automatic Vehicle Tracking System, Computerisation of website of RCS office, Electronic Clearance System, Management Information System for Education etc |
| Goa | Dharani Project |
| Gujarat | Mahiti Shakti, request for Government documents online, Form book online, G R book online, census online, tender notice. |

| | |
|-----------------------------|---|
| Haryana | Nai Disha |
| Himachal Pradesh | Lok Mitra |
| Karnataka | Bhoomi, Khajane, Kaveri |
| Kerala | e-Srinkhala, RDNet, Fast, Reliable, Instant, Efficient Network for the Disbursement of Services (FRIENDS) |
| Madhya Pradesh | Gyandoot, Gram Sampark, Smart Card in Transport Department, Computerization MP State Agricultural Marketing Board (Mandi Board) etc |
| Maharashtra | SETU, Online Complaint Management System—Mumbai |
| Rajasthan | Jan Mitra, RajSWIFT, Lokmitra, RajNIDHI |
| Tamil Nadu | Rasi Maiyams–Kanchipuram; Application forms related to public utility, tender notices and display |
| North-Eastern States | |
| Arunachal | Community Information Center. Forms available on |

| | |
|-----------------------------------|--|
| Pradesh, | |
| Manipur, Meghalaya, | the Meghalaya website under schemes related to |
| Mizoram & Nagaland | social welfare, food civil supplies and consumer affairs, housing transport etc. |

Source : PC Quest Article

7. IMPACT OF E-INFORMATION SERVICE IN RURAL INDIA:-

- Rural e-information service improves civil society participation in the governing process.
- E-information service permits new ways of participation of citizens and communities for debating. Such interactions facilitate provision of accurate information about social problems and their possible solutions.
- It empowers communities to determine their own future by developing self-efficacy and collective efficacy.
- When the importance of e-governance increased in the society the rural India connected with ICTs within a short period.

- Rural e-information service can provide timely information to the citizens and have the potential to spawn innovative means of wealth generation in rural context.
- Rural e-information service leads to improve the standards of the people.
- E-information service improves living standards in remote and rural areas by providing important commercial, social and educational benefits.
- Electronic service centers have a pivotal role to play, especially in reaching out to the marginalized sections living in remote areas.
- E-information service play very important role in education, governance, environmental monitoring, health, human rights promotion, economic growth and other areas.

8. BARRIER OF E-INFORMATION SERVICE IN INDIA:-

- Technical language used during information repackaging limit information accessibility in rural areas.
- Inadequate funds and information being outdated
- Low level of literacy rate in rural areas and most people are agricultural worker.
- Lack of reading culture in rural villages in India is a most important factor for providing e-information service.

- Inadequate numbers of extension agents and lack of awareness of information sources also limited rural people from accessing information.
- Distance from rural residential areas to sources of information.
- Information usage Costs is a important factor for providing e-information service. In the modern days uses rate of information is very high.
- Limited information services and poor rural roads.
- Information infrastructure affected the accessibility of information services in rural areas too.
- Including gender division of labour which kept some busy throughout the day thus making them unable to use information sources and poor knowledge sharing culture among some rural people also limited information accessibility in rural areas.
- Lack of records on past events.
- Lack/inadequate knowledge resource centres;
- Lack of trust among rural people resulted into limited access to information in rural areas.
- Furthermore, that differences in age, gender and social economic status limited farmers in acquiring information from their fellow farmers or village leaders.

- Most of the elderly people of the rural area in India did not want to learn from the present generation.
- It was found that costs associated with using some communication channels, lack of time to access information and geographical isolation were among the reasons limiting the accessibility of information services in rural areas.
- Lack of access to ICTs is a lower barrier than affordability.
- Non-owners of ICTs paid physical visits to relatives, friends or bars for the purpose of having access to ICT devices, others used mobile phone kiosk to access the services at a fee
- It was further seen that illiteracy has been a great barrier to accessibility of information services in rural areas
- Taking an example of mobile phone applications, an illiterate mobile phone user could only have access to voice calls while literate mobile phone users could use both SMS and voice calls.
- Low income and high cost of ICTs and low education levels in rural area.
- Difficult languages used during information creation.

- Phone/broadcasting network have resulted into limited access to information services in most rural areas in India.
- Lack of necessary skills of using ICTs, fear of using new ICTs and lack of appropriate programmes for rural communities have equally limited the access to information services in rural area.

9. CONCLUSION:

Late delivery of information services, irrelevant information provided, unaffordable costs of information services and high level of illiteracy are mentioned to be among the factors limiting access to information services. Others include the poor and unreliable infrastructure, irrelevant time of broadcast of radio/TV programmed and lack of audience research to determine the information needs of rural people equally limit accessibility of information services in rural areas. In this time improving access to information services in rural areas and the level of living, education, infrastructure, and demands are changed and rural village are changed to information village and India moved developing country to developed country.

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