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Review on ICT and Digital Literacy initiatives in perspective of Chhattisgarh Rural Areas

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***Abstract*: Chhattisgarh is a developing state. In few decades of its establishment Government has paid attention on education and improvement in ICT and Digital Literacy of Chhattisgarh's rural areas. Emergence of use of ICT in day to day life is a need of today's world. Looking to this scenarioit is of utmost necessity to promote development of ICT and digital literacy in rural areas to connect them with outer world and bring them to the mainstream society. Under the guidance of Government of Chhattisgarh various projects for development of Information Technology were started and many are in pipeline for execution. The paper will focus on review of initiatives taken by Chhattisgarh government for ICT development and digital Literacy.**

***Keyword:* ICT, Digital Literacy, Rural Areas, Literacy Ratio, Chhattisgarh Government.**

I. INTRODUCTION

ICT (data and interchanges innovation - or advancements) is an umbrella term that incorporates any specialized gadget or application, enveloping: radio, TV, PDAs, PC and system equipment and programming, satellite frameworks etc, and additionally the different administrations and applications connected with them, for example, videoconferencing and separate learning. ICTs are frequently talked about in a specific setting, for example, ICTs in training, medicinal services, or libraries.[1]

Numerous nations around the globe have built up associations for the advancement of ICTs, since it is expected that unless less innovatively propelled ranges have an opportunity to find up, the expanding mechanical advances in created countries will just serve to compound the officially existing financial crevice between mechanical "have" and "have not" zones. Universally, the United Nations effectively advances ICTs for Development (ICT4D) as a method for spanning the computerized partition.

Information and communication technologies (ICTs)— which incorporate radio and TV, and in addition fresher computerized innovations, for example, PCs and the Internet—have been taught as possibly intense empowering instruments for instructive change and change. At the point when utilized suitably, unique ICTs are said to extend access to instruction, reinforce the importance of training to the inexorably computerized work environment, and raise instructive quality by, among others, making educating and learning into a drawing in, dynamic process associated with genuine living.[2]

The Information and Communication Technology (ICT) in schools have been subsumed in the Rashtriya Madhyamik Shiksha Abhiyan (RMSA). Presently ICT in Schools is a segment of the RMSA. The Information and Communication Technology (ICT) in Schools was propelled in December, 2004 and reconsidered in 2010 to give chances to auxiliary stage understudies to primarily manufacture their ability on ICT aptitudes and make them learn through PC supported learning process. The Scheme is a noteworthy impetus to connect the computerized partition among understudies of different financial and other topographical obstructions. The Scheme gives support to States/UTs to set up PC labs on reasonable premise.

A. Digital Literacy

" Digital literacy is ability to use digital technology and communications tools, and/or networks to access, manage, integrate, evaluate, create and communicate information in order to function in a knowledge society. Specifically, the elements, definitions and competencies are:**"[3]**

Appreciation of Digital Literacy

To make a person IT literate, so that he/she can operate digital devices, like mobile phone, tablets, etc. also learn how to send email, access the mail id and also can learn how to access information through

Internet.

B. Basic elements of digital literacy are:

Access: knowing how to collect and retrieve information.Actual uses of Access element in digital literacy are to find, search and retrieve information in digital environment.
Manage: To apply and manage the information from existing scheme.
Integrate: Interpret and represent information by using ICT tool to synthesize, summarize, compare. and contrast information from multiple sources.
Evaluate: Making judgments about the quality, relevance, usefulness, or efficiency of information.
Create: Make new information by applying, design and invent new thing and to authorize to user. Use to adopt, apply, design, or invent information in ICT environments.
Communication: Communication, adapt, present information properly in its context(audience, media) in ICT environment and for a peer audience. [4]

II. CHHATTISGARH AND LITERACY RATIO

A.Chhattisgarh Population

Chhattisgarh has a population of 2.56 crores. Total population of Chhattisgarh as per 2011 census is - of which male and female are 12,832,895 and 12,712,303 respectively. In the given table the geographical area of Chhattisgarh are:

Table 1:Geographical Areas In Chhattisgarh

Geographical Areas		
1.	Tehsils	15
2.	Blocks	15
3.	Tribal Blocks	3
4.	Town	15
5	Village	2219
Populated area		2081
5(A)	Revenue Village	2133
5(B)	Forest Village	86
5(C)	Uninhabitated Villages	52
6	Revenue Inspector Mundal	27
7	Patwari Circle	423
8	Police Stations	39
9	Police Posts	8
10	Assembly Constituency Area	13
11	Municipal Corporation	1
12	Municipalities	9
13	Other Town in Municipalities	1
14	Urban Development Agency	1
15	Notified Area	-
16	Special Area Development Authority	1
17	Janpad Panchayat	15
18	Gram Panchayat	1204
19	Krishi Upaj Mandi	11

B. Chhattisgarh Literacy Ratio

In 2011, the total number of literates in Chhattisgarh stood at 15,379,922 out of which the males were 8,807,893 however the females were 6,572,029.Chhattisgarh's literacy rate was 70.28 %. The male literacy rate was 80.27 % however the female literacy was 60.24 %.

Table 2 :Total Population in Chhattisgarh

Population of CG in 2011		**Total people**
	Total Population :	25545198
1	Male Population	12832895
2	Female Population	12712303

Rural literacy rate was 65.99% and the total number is 11,008,956. In which female literate were 4,605,944 and the rate of female are 55.06%.Total no. of male were 6,403,012 are literate and the percentage of male ratio is 76.98%.

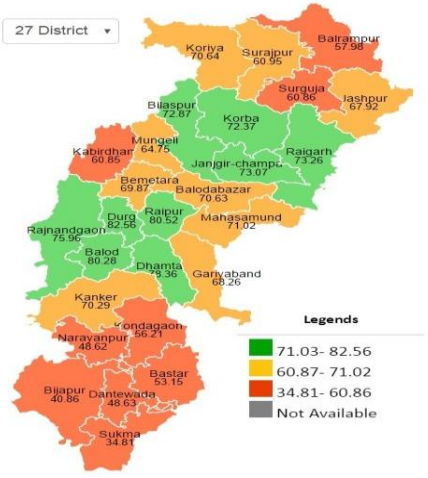

Fig.1 Literacy Ratio in Urban and Rural Area

In Urban Areas total no. of literates were 4,370,966 and the percentages were 84.05%. in which female

literate in urban areas are 1,966,085 and the percentage ratio were 77.24%. and male literacy percentage is 90.58% and the total no. are 2,404,881.[5]

Table 3: The no. of peoples Literates in Chhattisgarh in 2011

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SN	Literates	Total people
1	Total Literates	15379922
2	Male Literates	8807893
3	Female Literates	6572029
4	Rural Area Literacy	11008956
5	Urban Area Literacy	4370966

III. CG GOVERNMENT INITIATIVE FOR ICT IMPROVEMENT

Chhattisgarh Infotech Promotion Society (CHi PS) is the nobal agency and prime mover for Increasing of IT growth & implementation of the IT & e-Governance projects in the State of Chhattisgarh. CHi PS is involved in the end-to-end implementation of some mega IT Projects.

Chhattisgarh, a state of wide range of socio Economic differences is now witnessing the ongoing information Technology (IT) revolution. The Government of Chhattisgarh visions 'Vikas mool mantra, Aadhar loktantra' and believes Information and Communication Technology (ICT) is a particularly important medium for the state in reaching out and improving livelihoods specially for its overwhelming SC / ST population across 44% forest area, which had largely remained untouched by modern development.

The State of Chhattisgarh recognizes the importance of Information and Communication Technology as a key enabler in its economic development and improving the quality of life. With a view to make Chhattisgarh an IT enabled state progressively, CHi PS has come up with the "Electronics, IT and ITeS Investment Policy of Chhattisgarh 2014 – 2019".

Key Projects Undertaken by CHi PS are:

A.CG State Wide Area Network - CG SWAN

CG SWAN stands for Chhattisgarh State Wide Area Network. CG-SWAN will be a safe, fast, reliable and cost effective network connecting all the 146 blocks of the State through a hybrid network.

CG SWAN consist of networks Like WiMax, leased Line and another network technology on public private partnership mode and operating on a Build-own-operate-transfer (BOOT) model.

Milestones:

- CGSWAN is one of the largest swan in India.
- In CG SWAN block level connectivity is 2mbps.
- WiMax Development is largest development in CG SWAN.

B. E-District

It is one of the 31 Mission Mode Projects (MMP) under the National E-Governance plan (NeGP).

Benefits:

- It provide efficient delivery of service.
- Reducing service time and cost for government and citizen.
- It is ensuring the optimum utilization of the already established core of SWAN, CSCs, SSDG.

C. Common Service Centers (CSC) –Rural CHOi CE

It is also called "Gramin CHOi CE center". It provides front-end delivery points for government social and private service on anytime and anywhere access to rural citizen. It provide various citizen centric service like aadhaar enrollment, PAN card, DTH /Mobile recharge, LIC premium, and others G2C and B2C services for citizen.

Benefits:

- Through CSCs CHiPS helps the SBI to deliver financial inclusion service to rural citizen.
- With the help of CHiPS CSC Deliver various health service to rural community.
- CHiPS as aadhar enrollment agency have enrolled aadhar of more than 15 Lakhs resident.

D. CHOi CE (Online G2C Services)

CHOi CE Stands for Chhattisgarh online information system of citizen empowerment. CHOi CE is a one stop window and connected with other Government department. It is the project which complies with IT Act 2000. It is connected with government 24*7.

Goals:

- To establish electronic citizen service center across CG State.
- These robust systems can handle 30000 named users and 3000 concurrent users.
- It provides us easy access to information by senior managers and staffs.
- It creates better communication between government and citizen.

E. Geographical Information System (GIS)

CG state has wide range of natural resources and rich cultural diversity. CG government through its nodal agency, CHiPS in consultation with Department of Panchayat and Rural Development (P&RD) and Department of Land Revenue (LRD) has generated Natural Resource Database (NRD) for the state on various scale from 1:50000 scale for natural resources, 1:4000 for rural cadastral maps and 1:1000 for urban amenities.

F. Student Life Cycle Management System

CHiPS has started a project with a web based application-Student Life Cycle Management and allied service as a service to university and collage.
It is web based software which design to manage and optimize a student lifecycle. It automates and connect various core process like admission, academics, examination, and placement management.

G. WI-FI CITY

CHiPS are geared up to the process of setting up a secured Wi-Fi connectivity in CG. The Wi-Fi connectivity under Wi-Fi city project will help people to use Smartphone, tablets, notebooks, laptops and other mobile device.
Advantages:

- It is convenient through the wireless nature.
- It has mobility with the emergence of public wireless network.
- User can access internet even outside in their normal work environment.
- It is Cost effective.

IV.CG GOVERNMENT INITIATIVE FOR DIGITAL LITERACY

State Government start digital process in universities by providing online examination form. Through this student can fill their form at home and choice center and student can also check their results and application status online. CG Government also provides email notification and sms notification to the students.CG government encourages the citizen for cashless transaction. There are 31 services available at E-District portal. During "Digital India Week 2015" Chhattisgarh has been awarded as the best performing State for its exemplary work in the field of information technology . CG government has started Wi-Fi city scheme to give high speed internet facility to the people. Online facility for social welfare department and revenue department through integrated Chhattisgarh Mobile App, CG campus Connect portal, Lok Seva Kendra and CSC. In line with the Start-up India Action plan, the State Government launched Start-up Chhattisgarh Action Plan 2016 for promoting start-ups in Chhattisgarh. Government has start the projects like Broadband highway, Universal Access to Phones, Public internet access, E-governance, e-kranti etc. projects to make our state digital.

V. CHALLENGES AND IMPROVEMENT STRATEGIES FOR ICT AND DIGITAL LITERACY

A. Geographical Challenges: In Chhattisgarh some places like bastar and other places are not under threat so if we are integrating the digital devices to those places, they are of no use. People on those place have no knowledge about this devices so it is of no use to integrate this devices in those areas.

B. Social Challenges: Citizens on the backward area are not aware of digital environment, Literacy Importance so they are not easily ready to accept the changes on Digital Environment, this is the main reason that our state is not a digital state.

C. Improvement on social: Government should make people aware of digital world and their benefits in Backward area by Dramas, Activities like: Digital programs, prepare a presentation on digital world so that the people can easily understand and by providing the digital device to that area and teach them how to operate those devices, Govt also can provide the digital education in those areas.

D. Economical Challenges and improvement are: In Chhattisgarh there are many people below poverty line and does not have enough income so many people of Chhattisgarh cannot afford digital change.

E. Infrastructural Challenges: In rural area of Chhattisgarh there is lack of facilities. Even in many villages no electric supply is there which is a major problem for promoting Digital literacy. Chips is a medium for promoting all the projects but the government has to take the initiatives for running those projects and update all the website to communicate correct information to the people.

F. Communication Challenges: English language is one of the greatest challenge in communication. In Chhattisgarh approx 70% of overall population cannot speak and understand English easily, and on digital world all works are based on English language. This is also the challenge for CG government to teach all the citizen of CG to learn

English language. Especially in backward areas or Rural areas of CG people speak only the state language. So it is too difficult to make the city Digital.

G. Awareness: we can aware people by organizing a small event in rural areas to show how digital work is going and also tell the benefits of digital Literacy. Teach them how to access the internet and teach them how to use digital gadgets in our day to day activities like transaction of money etc. As the government is promoting the cashless transactions they should Teach people how to operate the swipe machine for transaction and how to make a transaction online.

VI. CONCLUSION

In the era of Digital world most of the people are not literate, and as the state is under development then people also need to enhance their skills of digital education. When we talk about the digital literacy ICT has played a important role in digital education. ICT is one of the medium to promote the digital Literacy.
Chhattisgarh Government to support digital literacy has started a many projects like broadband highway, Wi-Fi connectivity; online application form submission etc. CG government can start a small projects in Rural areas like organize a class to teach computers and to teach farmers to sell their products online and can get better price and can connect rural areas to cities. Government

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