

INFORMATION TECHNOLOGY AND TECHNICAL EDUCATION ROLE IN DEVELOPMENT OF RURAL INDIA

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Abstract - Information and communication technology (ICT) boom promised India to solve all its problems related to rural development. Three fourth of our population lives in remote rural areas. Rural problems are lack of development, backwardness, poverty, unequal distribution, illiteracy, malnutrition, lack of employment, lack of opportunity, poor health and hygiene and many others. These problems are interrelated and forms a vicious circle. Cumulative efforts are needed to solve all these problems simultaneously. Information and communication technology advancements have shown a hope to uproot these weaknesses and to bridge the gap between villages and cities. This role of ICT, computer technology and technical education is the key issue discussed in this paper.

KEY WORDS: information and communication technology, cloud computing, rural development, technical education, webinar, online classes, artificial intelligence, machine learning.

1. INTRODUCTION

Information and communication technology advancements empowered human civilization with power to eradicate all challenging problems of rural India in one go. India is a developing economy where 70% of our population is rural and even after 70 years of independence our rural masses covered a little distance on the road of development. Major chunk of workforce in villages are underprivileged and still living a life below poverty line or marginally above it. Divide between India and Bharat is widening day by day. Though efforts have been made by governments, NGOs and other national and international welfare organizations to change the overall scenario but still picture in far flung conglomerates is not very enthusiastic.

Since independence till date many organized efforts have been made for eradication of these deep rooted evils. A huge amount of public money exchange hands on the name of rural upliftment every year. Many development schemes are run by central, state and local governments for rural economic and social development. Some islands

of development are created by the development machinery. Unfortunately common village people lives still remain unsatisfactory in comparison with their counterparts in smart cities.

2. COMPUTER TECHNOLOGY RELEVANCE

In current world scenario India emerged as a global power in the field of computer technology. Our tech savvy youths are shaping the world into a place where information technology is playing a very crucial role in our day today activities. Computers, laptops, smart phones, tablets and gadgets have become essential for our routine daily activities. Internet has become an essential service for most of the literate youths. Its accessibility in our six lakhs villages is becoming easier day by day. Forth and Fifth generation of network access opened the gates of fast data access for corporate, governments, organizations and for individuals. World has converged into a global village. Any information of the world is just a click away. Facebook, Youtube, Twitter and WhatsApp are contributing in bringing creativity out of all minds and ideas sharing has become so easy as it was never before.

This revolution in technology has opened new avenues for rural development scenario. It has shown a ray of hope for our poverty ridden people to participate in the main stream of development and growth and to say no to problems like

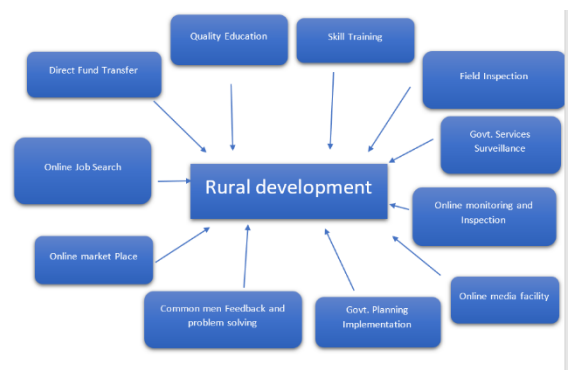


Fig. 1: Crucial points of rural Development in India

poverty, unemployment, malnutrition, illiteracy, social and economic backwardness, poor health and hygiene and many others of course. The only hope one could see is the ICT and computer technology which could become panacea for making rural India prosperous. The key point is that Indian mind power if trained properly, then this human resource can become very useful for the whole world. Multinational corporates coming to India preferred only technical Indian hands for jobs. Indian technocrats are in high demand in other countries. They are contributing very actively in global economic development and ultimately for the welfare of human being.

3. TECHNOLOGY AND RURAL DEVELOPMENT

Mostly our new generations in villages are familiar with phones, Facebook, WhatsApp, Youtube, Video Conferencing , Google Meet and Zoom etc and are using them frequently in day today life. In times of Covid-19 pandemic rural strata utilized online and digital services for banking, vaccination, education, job, employment, medical facilities and for many others. It spread a wide awareness among masses about role of information technology in handling our essential routine requirements. It was the ICT technology which turned the game in favor of us and pushed out the human civilization out of this dark time. Economies could survive this pushback and could revive to growth again because of ICT.

Head	Value(Million)
Total Population India	1210
Rural Population	833
Below Poverty Line Population	269
Rural BPL Percentage	25.7%
Bpl Income Per Day in Rural Area	Rs. 27
No of Villages In India	66.44

Table 1.: **Data about rural India**

Source: Indian Census 2011

New fields of computer technology like Cloud Computing, IOT, Big Data Analytics, Robotics, Natural Language Processing, Artificial Intelligence and Machine Learning promised us to bring an era of development and prosperity for our rural youths. The great challenge to overcome is

the digital divide between rich and poor, backward and forward, masses and smart citizens.

Cloud computing provides low cost information services for rural areas. Robots played a very helping role in Covid-19 pandemic. Rural data banks, analysis of data and machine learning based smart models and natural language processing capabilities have made it possible to reshape the overall landscape.

Benefits of development should percolate up to the lowest person in hierarchy. ICT is a proven tool to eliminate all hurdles faced earlier in benefits of development to reach the bottom beneficiary. Modern technology made it possible to impart world class education, training programs, skill enhancement programs, technical training programs to the people living in remote locations to bring them at par with others.

Mainly people in remote villages are peasants, artisans, agricultural labourers, women and children living in poverty since generations. Due to low income, illiteracy, lack of opportunity, lack of awareness, social inequality and traditional rituals, a large portion of rural population is living in inhuman conditions. Efforts to uplift them and to bring them into mainstream proved insufficient and non-serious in approach. Government officers, employees and politicians responsible for implementation of welfare schemes have no mindset and sympathy to really change the ground situation. Corruption degrades the quality of works. Results are failures of planning to achieve real goals despite huge investments year after year.

Using current technological innovations, scenario could be completely changed. Government schools could become centre of excellence for poor children. Virtual classrooms and online classes can impart rural poor youths quality education, entrepreneurial training and skill training to enhance their incomes and living standards. Peasants could be trained in new farming technologies to improve outputs and ultimately their lives. Weather forecasting, market information, packaging and sorting training and other valuable training programs for rural workers, women and others will be of utmost importance. Webinars on seeds, fertilizers, contract farming, marketing of agri products, quality improvement, gardening, fisheries, animal husbandry, dairy farming, organic farming, beekeeping etc will change the overall situation. Self help groups, youths, labourers, women, artisans skills could be upgraded to improve their economic status.

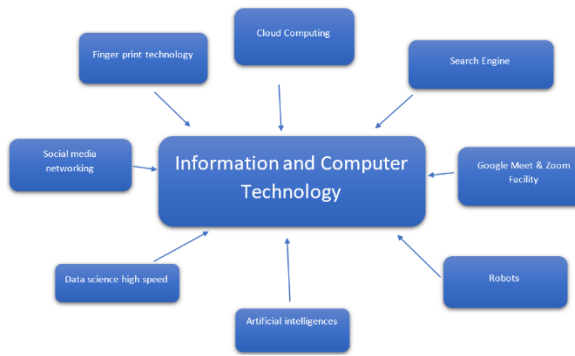


Fig. 2: Components of Information and computer Technology (ICT)

4.SOME OTHER RELEVANT BITS

Credit facilities could be extended by financial institutions to encourage them to start their small and micro startups. Marketing skills enhancements to sell their products in the competitive markets. Financial help to exhibit their products in trade fairs etc could help them to achieve self-sufficiency to live a descent life.

Government intervention in their lives must be positive in the sense to show them right direction. Credit facilities should be easily accessible. Credit should be sufficient enough to start a feasible startup. Credit terms and conditions must be relaxed. Credit institutions should adopt villages for startups and should extend each and every financial help positively to make their business feasible.

Tendency of financial institutions to extend credit facilities only to prosperous people and negligence towards middle class and lower class people is a major hurdle in entrepreneurial culture growth. Mudra Yojna is an excellent initiative by the government to accelerate rural credit growth and to improve rural economy. Also welfare schemes beneficiaries should be selected professionally using ICT initiatives. Erratic power supply is also a major problem in ICT implementation. It should be corrected first to get benefits of computer technology advancements. Monitoring of projects, assessment of beneficiary, fair selection, proper feedback, grievance redressal, quality control, field inspection etc could be carried out by using ICT. All irregularities may be avoided and world class rural amenities may be ensured using such technologies. Fair public distribution system using finger print technology, LPG online booking and distribution, Kisan Samman Nidhi transfer direct in the account of peasants, employees attendance using finger print, KYC verification using online

ICT has made our lives easy and ensured fair practices in governance.

5.CONCLUSION

Information technology revolution has potential to solve most development problems of rural folks if implemented honestly and with positive mindset. When information regarding government schemes will reach the right target group at right time. When all processing will be transparent and user friendly, when even the poorest will be able to send his request for and right action at right time will be ensured, when hazards of paths from public to officials will be none, when common man will be aware of his rights and duties, when his hands will be powerful and mind will be fresh, then Indian rural development and growth will be robust and resistance free.

When rural people will be well informed of new ways of cropping, new seed varieties, new markets for their products using Internet. Rural technocrats will bid for good wages based on their skills using web utilities and whole world will be at their disposal. All government centers, universities, Medicare will be available online, Indian rural women and girls will discuss computer Bits, in that era of freedom and knowledge, let my country awake.

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7.BIOGRAPHIES



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