

242. Effective Utilization of Technological Development—Opportunities & Challenges for the Rural Populations

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Abstract. We are living on the era of Global village, where all the development happens in Science & Technology is well known to every citizen through Information Technology. In this context, every one living in the rural areas should get connected to the Information Technology applications; applications depending on their needs and requirements. The citizen should know how to connect, where to connect, when to connect with the available applications etc. for their needs and requirements. By considering all the aspects, this paper proposes to reduce the digital gap using the following aspects to improve their day-to-day life activities effectively for the rural masses. This paper analyses the challenges and proposes a new and novel approach of taking information technology applications to the rural more effectively.

Keywords: Digital gap, Information technology applications in rural areas

Introduction

We are living on the era of Global village, where all the development happens in Science & Technology is well known to every citizen through Information Technology. In this context, every one living in the rural areas should get connected to the Information Technology applications; applications depending on their needs and requirements. The citizen should know how to connect, where to connect, when to connect with the available applications etc. for their needs and requirements. By considering all the aspects, this paper proposes to reduce the digital gap using the following aspects to improve their day-to-day life activities effectively for the rural masses:

- Integrating the NSS / NCC students cadre / Social working Groups of nearby Educational Institutions with the rural villages
- Awareness programme about Sciences & Technology utilization like Space Satellite Applications, Medical Applications, Tele Medicine, etc., in their day- to – day life , which leads to improves Quality of their life
- Sciences & Technological Centre for every village Municipality for people living in that areas can develop their knowledge about happening across world
- Nurturing & Grooming the school children's towards the development of Science & Technology to develop future Scientists, Social Scientists , Medical Doctors, Technocrats , etc., to strength our Nation
- More effective way of Using Mobile Technology for Information and Knowledge exchange thro Video's with experts of their need in Agriculture , Health Care with minimal cost
- Awareness about energy saving programmes

Opportunities and Challenges

The following scenarios' are faced by the villagers in rural for their day-to-day life in the Indian context

- Lack of awareness in accessing needed/crucial information
- Rural citizens are not able to know their living rights
- Lack of knowledge in development of Sciences , Technology , Health Care , etc.,
- The rural masses should travel for a long distance to the cities / State head quarters for their needs like approvals, licensing, etc., from Government department / officials - which leads to spent their valuable time

- For certain information they don't know how to approach / where to approach, dealing with departments,
- etc.,
- Indian youth has an opportunity to connect the entire world through the technological advancements.

Creating Awareness

The rural masses should be developed to the level of Global citizen, where they can lead their self-sufficient life. Rural masses should have the knowledge of all the inventions developed for the mankind applications (equipments, agricultures implements, medicine, etc.). As a part of social responsibilities, it is our duties to expose the modern technologies applied in villages of developed countries. The awareness should be created in the following areas:

- Health care: Healthy life awareness camp in food habits (nutrition foods), first aid, Telemedicine, webinars, seminars and hygienic sanitary systems are needed/to be provided. Medical centre with medical store separately or associated with primary health centre of central/state Government which will cater the demand of medical needs. 24 x 7 dedicated medical centre for villagers medical services are also to be provided. This Panchayat Medical Centre (PMC) is to be connected with the large multi-specialty hospital in metropolitan cities as mentioned in Fig 1.

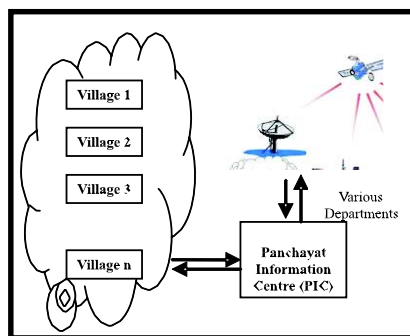


Figure 1: Connecting all villages to Panchayat Information Centre (PIC)

- Digital information through information technology: Developing information centers in one village or group of villages around five to ten kilometer surroundings is also suggested. The information centre should have Internet connectivity where all the rural masses can get the information at free of cost. Rural masses should avail the facilities like ticket booking, commodities rates, market rates for the vegetables, fruits, etc., The information centre should have facilities like Fax, Printer, Telephone, etc., and it should function 24 x 7 to serve the villagers. All the villagers should be given ATM / credit card / Debit card for online transaction to book pesticides; any make payment, etc., of their requirements. These online information facilities to be connected to the district head quarters as give in the following Fig 1.
- Satellite Communications: Information about the wealth of land in particular villages for better crop (seed nurturing) for the season to be maintained. Minerals available in that areas, etc., Disaster Information/alert should be sent to the villagers thro Panchayat Information Centre(PIC) to all mobile phone(if applicable through the regional languages of their choice) of individual people from Government Department as mentioned in Fig 2. This Panchayat Information Centre (PIC) is connected to the Government Departments, other sources of information centers, websites, etc., through the satellites.

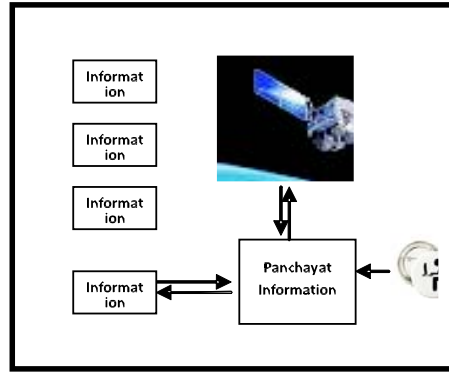


Figure 2: Networking of Information Centre

All the mentioned activities will possess the rural masses for their upliftment in their day-to-day life style.

Challenges: Approach for Creating Awareness

a. Integrating various departments

It is recommended to identify and involve the following potential groups for the collective growth of a village or group of villages involved in a panchayat.

- Departments
- Associations
- Non Governmental Organization (NGO)
- Self Help Groups (SHG)
- Educational Institutions
- Corporate

b. Roles and responsibilities

The roles and responsibilities of each participant can be given as follows;

Department: Primary health department can be assigned for health related treatment co-ordination for the villages, record of the health of each villager, etc.,

Associations: The industries association such as CII etc., for the district can be involved for purchase of equipments, etc.,

Non-Governmental Organization (NGO): The overall co-ordination of the NGO's specialized activities like (palm tree, environment, and education) can be given primary importance.

Self-Help Group (SHG): Involving SHGs like incharge of the information centre, maintaining records of each villagers, supporting the hygienic and healthy awareness programmes ,etc.,

Educational Institutions: NCC / NSS units of the educational institutions can be involved for creating awareness through camps , road shows, skit , medical shows , technology shows , etc., for Sciences & Technological awareness and happening around through mobile van, etc., Also they can arrange some camps for blood testing, eye testing, medical check-up camps.

Corporate: The major corporates can be involved by their assistance/sponsorship through technological resources which can be exempted from Income Tax.

Utilization of Technological Development–Execution of The Programmes

All the associated individuals, associations, NGOs, SHGs, NCC/ NSS of Schools and Colleges should deliver their responsibilities for the upliftment of the villagers.

Training Programmes/Workshops for the villagers for a week in the areas of

- Importance of nutrition/healthy/balanced food
- Providing purified water
- Good living conditions
- Making computer literate to apply in information centre
- Establishing Internet Browsing centers to get information across the world
- Providing need based agricultural related training
- Science and Technology Applications-serving mankind in everyday life
- Environment related activities - more tree planting through waste water/drainage water
- First Aid
- Energy saving programme like solar equipment ,etc.,
- Online certificate courses/training courses

Involving the Villagers for more action oriented towards applying Science & Technology of day-to-day life

Training the trainers programme for staff members, students in schools and colleges depending on their roles and responsibilities.

Every year the villagers can celebrate their 'Villagers Day' or 'Panchayat Day' by inviting all the Administrative Government officers, Ministers, Eminent personalities of that nativity village which will provide a platform to share their views and also they can improve upon the present scenario.

The following will be the outcome of the effective utilization of technological development–awareness campaign:

- i. Individual villagers, level of self confidence will be raised
- ii. They will be self starts to do the things better
- iii. The programme will drive the individual's to more productive and action oriented
- iv. More awareness about life through Science & Technology
- v. Knowledge sharing among villagers through this programme
- vi. By utilizing the Information technology in the digital era the villagers will get the information of their need related to agricultural implements, pricing of the cultivated vegetables, Medical services, education, internet banking , etc.,
- vii. The villagers can able to save more time also they will be more productive
- viii. Every Individual will be proud to celebrate 'Villagers Day' or 'Panchayat Day' for the better quality of life
- ix. Awareness about best practices adopted across the world

Similar programmes can be conducted every year continuously, so that the development in Science and Technology will be upgraded continuously among the individuals. The Government can also think about dismantling the Integrated departments, the roles and responsibilities can be interchanged for betterment of knowledge sharing.

Conclusion

This paper provided various measures and guidelines that can be implemented for the effective usage of technological advancements in India. The technology gap prevails among the previous generation will be reduced and the Government can drastically introduce new policies and guidelines for the technological advancement. At the end, the gap between the World and the Indian Villages in this digital era of information technology is almost bridged to the Global living standards within next decade.

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