

## ICT Supported Innovations; The New Perspectives for Lifelong Learning & Rural Development.

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### ABSTRACT

*We are moved into an era of advanced technological innovations, affecting the way developed countries run their businesses, their Institutions and lead their lives. One of the areas in which these technological advances are dramatically influencing people's lives is Computers, Information and Communication Technology (ICT), hence the claim that, we are in the midst of a 'digital revolution' that is driving us towards an 'information society'. It is important to define how ICT is used and the scope of ICT interventions, through which, with some exceptions, the process take shape at different levels; local, national and global. This paper presents a brief review of technologies and provides a broad profile about the use of advanced technology, the Computers, ICT, the medium most used in the field of Agriculture, Commerce and Industry, all using in terms of Lifelong Learning and Rural Development for best reach and output.*

**Keywords : ICT Innovations, e-Learning, Lifelong Learning, Rural Development**

### Introduction

Technology has surrounded us in the form of Computers, Networks, Information and Communication Technology (ICT) enabled services, Internet, Mobiles, Smart Phones, iPhones, iPads and so on. And now the teachers are started using smart Class room facilities enabled with power points and graphics, White Boards and so on. Digital classrooms look like the future. It could solve the problem of reaching out to everyone or the unreached with these technological innovations. Definitely there are, different perspective in the minds of people both the users as well as the beneficiaries. Will ICT improve performance of Lifelong Learning process? Will ICT support in the Rural Development process? Can the tech tools replace teachers? Will students be able to grasp better? These are some of the study relevant and opinioned in this paper.

### ICT for Lifelong Learning

The Human Resource Ministry of Government of India is envisaged the process of e-Government and there are initiatives in those directions. A large number of information and communication technology enabled infrastructure and services have been funded and government department for the last few years started many innovative projects for the benefits of the rural as well as the urban inhabitants. Optimize the results of these ICT based projects by monitoring and evaluating with a qualitative indicators for its potential use, benefits and the drawbacks including methodological approaches in adopting new technology enabled services and its scope, efficiency and attainable benefits to the inhabitants.

The venture from the Government, Non Government Organizations, Commerce, Industry, Agriculture, and Education are continuously working towards this process and consequently aiming at Rural Development and Lifelong Learning. At the local level (the village district or in

some cases the urban level) ICT enabled services provides citizens with information about, for instance, local news, market prices and social services, such as health, knowledge and education. At the national level one finds more complex ITC systems that carry information about jobs, investment opportunities or goods and services. Finally, at the broadest level, there are systems that connect to the global information infrastructure. As for the types of intervention, first are those where the poor benefit directly. This usually happens at the local level. The clearest example is the farmer who benefits from technology to get daily market prices and can subsequently buy seeds at competitive price and sell produce at good price by eliminating the middleman.

An ideal example for this process is the e-Choupal introduced by the ITC. A powerful illustration of corporate strategy linking business purpose to larger societal purpose, e-Choupal leverages the ICT to empower small and marginal farmers by providing them with farming know-how and services, timely and relevant weather information, transparent price discovery and access to wider markets, e-Choupal enabled economic capacity to proliferate at the base of the rural economy. Today 4 million farmers use e-Choupal to advantage bargaining as virtual buyers' co-operatives, adopting best practices, matching up to food safety norms. Being linked to futures markets is helping small farmers to better manage risk. e-Choupal has been specially cited in the Government of India's Economic Survey of 2006-07, for its transformational impact on rural lives.

e-Choupal is a significant two-way multidimensional delivery channel, efficiently carrying goods and services out of and into rural India. By progressively linking the digital infrastructure to a physical network of rural business hubs and agro-extension services, ITC is transforming the way farmers do business, and the way rural markets work. The network of 6,500 e-Choupal centers spread across 40,000 villages has emerged as the gateway of an expanding spectrum of commodities leaving farms wheat, rice, pulses, soya, maize, spices, coffee, aqua-products.

The Second indirect intervention is where the benefits of ICT are felt upstream from the poor, but may trickle down through the social-economic fabric. An example would be the child who comes from a very poor family but managed to go to school. He or she now works in the capital city, at a job that uses technology, and with the money supports the family in the village. ITC's initiatives are aimed at (i) improving infrastructure in Government schools, (ii) providing supplementary education to support children with school learning and exam preparation and (iii) building community and parental involvement with school education so that more children go to school and finish school. The Supplementary Learning Centres are aimed to increase enrolment and prevent drop-outs. The Centres are situated in premises provided by representative village bodies, panchayats etc., as their commitment to continuity and growth of the community's involvement with education. Opening windows for rural children to improve educational outreach, ITC supports, Mobile Rural Libraries are being supported across 400 schools to spread and inculcate the habit of reading in children. 332 schools are also being covered under the Roaming Laptop programme to encourage learning through interactive modules on the computer in schools are also promoted under the e-Choupal Scheme.

The third type of intervention is using IT in support of poverty reduction mechanisms and development projects. Cross-cutting areas in poverty management can be greatly aided by introducing technology. Here we are describing, for example, a database that organises and monitors the progress of a number of poverty alleviation projects implemented by a development organization. This may include direct polling of information from the field, email, informative websites, monitoring and evaluation data, etc. to investigate the Role that ICTs have to play in developing countries, focusing particularly on those Rural areas that are currently least affected by the latest advances in the 'digital revolution'. Aims to look beyond the current 'digital divide' question which focuses on information disparities to assess the potential role of ICTs in the context of current Rural Development paradigms.

The current divergence between the technology drivers and the potential beneficiaries in rural areas in developing countries, together with the opportunities arising from the continued convergence of ICTs, old and new. Considers some alternative approaches that are being pioneered to harness ICTs for development goals including private sector, public sector and NGO-based initiatives.

The need for flexible and decentralized models for using ICTs is discussed in the context of 'content and control'. The challenge of achieving rural development goals by supporting knowledge and information systems is analyzed through an epistemological perspective illustrated by case studies from the literature and the authors' research on the operation of these systems at the community level. The concept of building partnerships at the community level based around information exchange is explored, using ICTs to improve systems for the exchange of information sources that already exist locally and also providing established information intermediaries with the facilities to enhance their capacity for information sharing.

### ICT for Rural Development

More than 50 % of the villages in India are having very poor socio-economic conditions. Since the dawn of independence, concerted efforts have been made to ameliorate the living standard of rural masses. So, rural development is an integrated concept of growth and poverty elimination has been of paramount concern in all the consequent five year plans. Efforts are made in strengthening Rural Development (RD) programmes namely on:

- Provision of basic infrastructure facilities in the rural areas e.g. schools, health facilities, roads, drinking water, electrification etc.
- Improving agricultural productivity in the rural areas.
- Provision of social services like health and education for socio-economic development.
- Implementing schemes for the promotion of rural industry increasing agriculture productivity, providing rural employment etc.
- Assistance to individual families and Self Help Groups (SHG) living below poverty line by providing productive resources through credit and subsidy.

The Scheme of National Mission on Education through Information & Communication Technology (NME-ICT) during the XI plan by the Department of Higher Education, Ministry of Human Resource Development, Govt. of India, for the best use of ICT for teaching and Learning. When using the term "online learning," one often imagines a virtual classroom, which is the space or platform in which a virtual course teaches the learning material. In this scenario, teachers and learners are based at different locations and enter one virtual classroom.

Online courses rely on an e-Learning platform, which is often just called the learning platform. This platform is a system that allows the creation and realization of a virtual learning centre within an institution or company. As a minimum, this platform supports the administration of e-Learning courses. The platform can provide different kinds of learning media and keeps track of user data. Learning platforms often reflect the particular needs of an organization or company and are developed further on this basis.

The process of developing a learning society equipping the student and non-student youth to adopt the changes and learn new skills in accordance with the new demands and dimension of work to prepare the scope of education as lifelong learning in rural society. The Internet and growth of computer networks have eliminated geographic barriers, creating an environment where education can be brought to student no matter where that student may be. The success of distance learning programs and the availability of many web supported applications and multimedia resources have increased the effectiveness of computer supported learning. However, technology continues to grow and keeping up with the latest trends can be difficult.

Implementing e-Learning are still technology driven and lack relevance for the user. With respect to the opportunities and limitations of e-Learning, we assume these studies, which should be considered when implementing e-Learning. Using these studies as a framework for the introduction of e-Learning could counteract the problems, which were encountered in the first excited phase of e-Learning.

Furthermore, the study could help to build courses that are able to satisfy these expectations. The application of new technologies and e-Learning is only beneficial for learners when it is based on a new philosophy of learning and teaching. E-Learning has to be integrated in the existing training culture of an organization. To achieve this, integrative approaches should be applied such as blended learning. Professional strategies of implementation are prerequisite to the beneficial realization of e-Learning in Schools, Universities, and Corporate. These strategies should be learner-centered instead of technology driven.

Advances in Computer supported learning clarify the new technologies, applications, and research in computer supported learning. It helps student's teachers and researchers gain a larger understanding of this field and the trends that are driving computer supported learning forward. It shares the knowledge of international researchers in computer supported learning, presenting the practices and challenges faced by designers.

The study conducted to comprehend the role of e-learning in education process, problem and prospects in lifelong learning for rural development and the phenomenon that transforms various aspects of Indian education system, learning process, employment and learning at work place, family life, socio-cultural-religious aspects apart from political sphere of the people of modern society in particular with the Metropolitan city of Mumbai, Navi Mumbai, Thane, Raigad, Ratnagiri and Sindhudurg District in Maharashtra State where the University of Mumbai academic region spread across and taken the online learning platform used by the Department of Lifelong Learning and Extension (DLLE), is chosen for the study.

The DLLE register students from affiliated colleges for courses both online and offline.

It is seen from the table below the details of students registered for Projects during the academic year 2010-11 for offline and online.

Table 1 : Details of students enrolled for offline projects from the five districts enrolled during the academic year 2010-11:

| Sr. No. | District    | SM  | APY | CP   | ITP  | IOP | PEC  | NIOS | SWS  | Total |
|---------|-------------|-----|-----|------|------|-----|------|------|------|-------|
| 1       | Mumbai      | 213 | 258 | 562  | 1838 | 49  | 1173 | 72   | 1097 | 5262  |
| 2       | Thane       | 147 | 51  | 375  | 438  | 03  | 1376 | 73   | 1198 | 3661  |
| 3       | Raigad      | 47  | -   | -    | 168  | 24  | 268  | -    | 495  | 1002  |
| 4       | Ratnagiri   | 39  | -   | 126  | 60   | 96  | 230  | 38   | 356  | 945   |
| 5       | Sindhudurg  | 38  | 121 | 117  | 46   | 14  | 114  | 97   | 338  | 885   |
| 6       | Grand Total | 484 | 430 | 1180 | 2550 | 186 | 3161 | 280  | 3484 | 11755 |

Student Manager [SM] Anna Poorna Yojana [APY] Career Project [CP] Information Technology Project [ITP] Industry Orientation Project [IOP] Population Education Club [PEC] National Institute of Open Schooling [NIOS] Survey of Women's Status [SWS]

Figure 2 : Graphical representation of the students enrolled for offline projects from the five districts enrolled during the Academic year 2010-11:

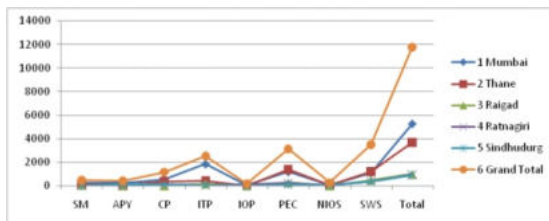
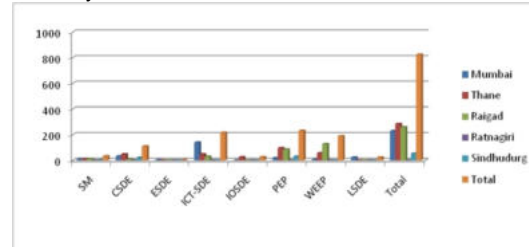


Table 2 : Details of students enrolled for online projects from the five districts enrolled during the academic year 2010-11:

| Sr. No. | District   | SM | CSDE | ESDE | ICT-SDE | IOSDE | PEP | WEEP | SDE | Total |
|---------|------------|----|------|------|---------|-------|-----|------|-----|-------|
| 1       | Mumbai     | 09 | 32   | 02   | 139     | 0     | 19  | 06   | 22  | 229   |
| 2       | Thane      | 11 | 48   | -    | 48      | 25    | 96  | 56   | -   | 284   |
| 3       | Raigad     | 10 | 08   | -    | 29      | -     | 85  | 127  | -   | 259   |
| 4       | Ratnagiri  | -  | -    | -    | -       | -     | -   | -    | -   | -     |
| 5       | Sindhudurg | 02 | 21   | -    | -       | -     | 30  | -    | -   | 53    |
| 6       | Total      | 32 | 109  | 02   | 216     | 25    | 230 | 189  | 22  | 825   |

Student Manager [SM] Career Skills Development Education [CSDE] Entrepreneurship Skills Development Education [ESDE] Information Communication Technology Skills Development Education [ICT-SDE] Industry Orientation Skills Development Education [IOSDE] Population Education Programme [PEP] Women Empowerment Education Programme [WEEP] Learning Skills Development Education [LSDE]

Figure 2 : Graphical representation of the students enrolled for online projects from the five districts enrolled during the academic year 2010-11:



**Conclusion**

ICT cannot perform as a substitute for Development rather it should address the rural urban divide and avoid large failures; deliver early results and open up electronic delivery of public services to the private and voluntary sectors. The ITC strategy needs to be calibrated to the country's situation in terms of PC & Internet penetration, (adequate technological infrastructure), software development capabilities available locally, literacy levels (both conventional & IT), languages prevalent, etc. and preparedness, commitment of political, administrative and technical leadership are also need acceleration.

The results through a critical examination of the current cineraria, Lifelong Learning Process, rural ICT infrastructure, electricity, application design, its deployment and delivery processes, the technologies and agencies involved in offering the services are closely monitored and the outcome is a clear indicator that there is improvement in the scenario and students from the urban colleges are moving upward compared to the colleges in the moffusil area. There are improvements in their performance and given more technological input the teachers will have more time for research and development and the students will be in a position to grasp better more efficiently. The study further revealed that the reason for the divide is mainly due to the lack of infrastructure facilities & encouragements, the skills and the trained manpower hence the segregate. Efforts are to be made in strengthening provisions of basic infrastructure facilities in the rural areas in terms of ICT facilities, electrification as the case for Rural Development.

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