

# Mobile Learning-Telecommunication Infrastructure and Usage in Rural and Remote Areas Students: A Review

**KEYWORDS** 

Communication technology, Distance learning, Infrastructure, Online-Learning, Telecommunication.

Mickey Sahu	Ashish Shrivastava
Faculty of Computer Science, Department of	Faculty of Bioinformatics, Department of
Computer Application, C.S.A. Govt. P.G. Nodal	Biotechnology, C.S.A. Govt. P.G. Nodal College,
College, Sehore, 466001(M.P), India	Sehore, 466001(M.P), India

ABSTRACT Computers have become an integral part of our lives. The world is undergoing numerous transformations due to rapid development and diffusion of information and communication technologies in all walks of life. Students heavily depend upon the computer to get tutorials, teachers sitting in front of the computer in their home or Call Centers and teaching multiple students at different locations and students receive constant feedback, news papers come with advertisement on online learning. The probable mutual assistance of this research could be the ease of use of students of rural and remote areas at large to the institute. The purpose of this paper is to empirically make clear the relationship between rural and remote area activities and telecommunications, making use of detailed telecommunications infrastructure and usage data. The results show that telecommunications and effort are, in most cases, complementary inputs in each sectoral production function, that rural activities use telecommunications less in the absence of advanced technology, but that the latter tend to significantly increase telecommunications usage.

### I. INTRODUCTION

This research uses the production function theoretical framework and an extensive, exchange level database on telephone usage and infrastructure, employment and population, to clarify the relationships between student between rural and remote areas economic activities and mobile communications. Relationships are estimated through regression analysis, linking mobile usage, measured in aggregate conversation seconds, by each of eleven economic sectors, to such variables as sectoral employment, rurality of the exchange, availability of advanced mobile communication infrastructure, regional core-periphery location of the exchange, and sectoral growth. Mobile communication technologies are claimed to lead to a new urban and regional spatial organization. In particular, they are believed to promote rural development by attracting information-intensive firms (e.g., producer services) to rural areas, simply because they allow these firms to trade their services beyond their local areas, providing strong multipliers, in contrast to consumer services bound to residentiary activities.

Mobile learning is the concept of education and training on PDAs (Personal Digital Assistants)/palmtops/handhelds, Smart phones, Tablets and mobile phones. The justification of mobile learning comes from the 'law' of distance education research which states that, 'It is not technologies with inherent pedagogical qualities that are successful in distance education, but technologies that are generally available to citizens'.

### II. LITERATURE REVIEW

Rural studies dealing with the impacts of Information and Communication Technologies are based on the premise (or speculation) that high-quality Information and Communication Technologies, with their space-transcending capabilities, can help attract footloose industries, particularly information intensive producer services (PS) firms, the fastest growing component of the U.S. economy, to peripheral and rural areas and contribute to their economic development, simply because Information and Communication Technologies allow these firms to trade their services beyond their local areas. PS activities, whose output is primarily information and knowledge that serve as inputs to producers of goods and services,

are considered export (or basic) activities, highly responsive to external demand, and thus with strong impacts on the regional economy. PS firms specialize in Consulting, Computing, Engineering, Finances, Advertising, Insurance, Public Relations, Legal Analysis, etc. In contrast to consumer services, PS firms are not bound to evidentiary activities. Kirn et al. (1990) analyze the growth of PS in the Seattle SMSA and surrounding rural areas. While they find that PS employment has grown everywhere, they cannot discern a clear decentralization trend towards rural Washington. However, they find that PS opportunities are largest in large rural communities, with high-quality Information and Communication Technologies.

# III. TYPES OF COMMUNICATION TECHNOLOGY Distance Learning E-Learning Face-to-Face Communication

**Distance learning** is a formalized teaching and learning system specifically designed to be carried out remotely by using electronic communication. Because distance learning is less expensive to support and is not constrained by geographic consideration, it offers opportunities in situations where traditional education has difficulty operating students with scheduling or distance problems can benefit, as can employees, because distance learning can be more flexible in terms of time and can be delivered virtually anywhere [9].

**E-learning** is a facilitator of online training and education in school, universities and other business organizations [10]. The University of Phoenix is one of the universities that offer online education with various course options for eager students.

In face-to-face communication both the sender and the receiver can communicate in a direct manner and can discuss and argue on all the relevant points then and there. It also helps the listener in getting to know more about the intentions of the sender by studying his body language and eye contact patterns. Though there are many kinds of communication methods owing to technical advancements, face-to-face communication has its own set of advantages over the others [7]. Face-to-face communication gets rid of suspicions

and doubts as you can look at the sender directly and study him to know more about his intentions.

### IV. POPULAR DISTANCE LEARNING TECHNOLOGIES

- Blogs
- E-mail
- Instant Messaging
- Social Networking
- Texting
- Tweeting
- Video Conferencing
- Video Technology, such as instructional videos, DVDs, and interactive video conferencing
- Voice Centered technology, such as CD or MP3 recordings

### V. ADVANTAGES

Information and Communication Technologies in rural and remote area can help to meet these challenges [3]. Information and Communication Technologies not only enhance national productivity, generate employment but also help to develop economic independence, personal and social capabilities among rural [5]. Following are some of the personal and social capabilities, which were developed as result of taking up enterprise among rural.

- Economic empowerment
- Improved standard of living
- Self confidence
- Enhance awareness
- Sense of achievement
- Increased social interaction
- Engaged in political activities
- Increased participation level
- Improvement in leadership qualitiesInvolvement in solving problems
- Decision making capacity

Economic empowerment by Information and Communication Technologies led to the empowerment of rural and remote area in many things such as socio-economic opportunity, property rights, political representation, social equality, personal right, family development, market development and community development and at last the nation development.

### VI. CLARIFICATION

The learning people in rural areas of Madhya Pradesh are not getting enough ease of use of educational institutions to continue their higher education [9]. in cooperation On-campus and Off-Campus interpretation have been conducted to categorize and investigate the learning behaviour of the target persons. Mobile-learning is very opportune in terms of ease of access without any barrier of place and time. The falling cost of the mobile communication technology is moderately a good motivational factor to adopt M-Learning instead of establish new educational institutions of higher learning which requires a serious economic asset for the development of their communications and other fundamentals [2]. Other reasons of troubling nature for rural learning collection of persons are their attachment in work for earn to complete the basic needs of their family and this earn is about 60% based on cultivation. The cultivation citizens almost not get time for study in proper manner.

The functionality and operation of the required and to be had mobile learning instruments are very easy to gain knowledge of and it does not require a very prickly technological information and talent to appreciate the way how these instrument employment [7]. Therefore, the learners of nontechnical course of learning would also be very easy with a little effort to utilize them for their learning objectives. M-learning will also be able to make available the contents of program of study for an exacting course of study in electronic form which is easily easy to get to, to be had and controllable without being frightened about the moment and breathing space.

## VII. CONCLUSION

Using the production function theoretical framework and an extensive, exchange-level database on mobile usage and infrastructure, employment and population, this paper set out to clarify the relationships between rural and remote area economic activities and mobile communications [6]. It's a high time to think about taking the initiative for adopting the technology based education and learning system so that the ever challenging requirements of a huge group of learners of the remote areas in rural. This result tends to support the idea that an advanced mobile communication infrastructure in rural and remote areas may be important to attract specific activities, particularly professional services, to such areas, and thus to promote their economic development.

REFERENCE
[1]. Egan, B.L., (1992). Bringing Advanced Technology to Rural America - The Cost of Technology Adoption. Telecommunications Policy 16 (1):27-45. | [2]. Guldmann, J. M., (1993). Input-Output Analysis of Regional Telecommunication Flows, Information Economics and Policy 5: 311-329. | [3]. Lancaster, F.W. (1995). The evolution of electronic publishing. Library Trends, 43 (4), 518-2 | [4]. Johnson, P (1996). Selecting electronic resources: developing a local decision-making matrix, Cataloguing and Classification Quarterly, 22 (3-4), 9-24. | [5]. Graham. S. and S. Marvin, (1996). Telecommunications and the City. London, Routledge. | [6]. Metz, P (2000). Principles of selection for electronic resources, Library Trends, 48 (4) 711-29 | [7]. Lewin, K.M. (2002). "The costs of supply and demand for teacher education dilemmas for development", in International Journal of Educational Development, 22(3-4), pp. 221-42. | [18]. Lee, Stuart D, (2002). Building an electronic resource collection: A Practical guide, Library Association Publishing, London. | [19]. Banks, F., Leach, J. and Moon, B. (2004) "New Understandings of Teacher's Pedagogic Knowledge" in Leach, J. and Moon, B. (eds) Learners and Pedagogy, Paul Chapman publications, London. ISBN 1 85396 428 X. | [10]. Fullan, M. (2006). The New Meaning of Educational Change, London, Cassell. Global Campaign for Education Teachers for all: What governments and donors should do. | [111]. Elmore, D. (2007). "Backward Mapping: implementation research and policy decisions", Political Science Quarterly. | [12]. Gayatri, D. and Kumar, Sridhar (2007). Consortium of Journals. SRELS Journals of Information Management. 41 (3), 293-298. | [13]. Jambhekar, Kaushwah & Gautam, (2008). Consortia Initiative for Access to Electronic Publication in Indian Libraries. 1st International CALIBER. | [14 Moon, B. (2009). "Building the research and edvelopment agenda around school based teacher education programmes: a new imperative in sub-Saharan Africa", The Curriculum Journal. | [15]. UN