Chapter 7
New Perspectives to Bridge the Gaps in School Education Through Satellite Connectivity

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ABSTRACT

Lack of civic amenities discourages well qualified teachers to be posted in rural interiors which has perpetuated the dismal conditions of school education in such countries. Keeping in view of Post-2015 Developmental Agenda of United Nations, the issues need immediate redressal. Indian situation is all the more challenging primarily due to its diverse ethnic, linguistic, cultural and geographical variations. Technological advancements have opened exciting new possibilities to link such resource starved regions to urban based centers of excellences. It has created unprecedented opportunities for delivering content, train teachers and utilize the rich tacit knowledge of the rural teachers. This chapter reviews the relevance of satellite technologies within the context of developing countries, identifies the issues for sustenance of such interventions and evolves new perspectives for pursuits of Sustainable Development Goals (SDGs). The discussions are based on the experiences gained by the authors in the process of planning and monitoring of a major satellite supported project in India.

BACKGROUND

India has been confronting with serious lack of civic amenities in deep rural interiors which discourages the well qualified teachers to be posted in such locations. Most of the Rural schools are managed by untrained teachers who lack basic motivation to work in such areas. It is difficult for the Government to make trained teachers available in remote locations primarily due to their reluctance to be posted in such disadvantaged areas and weak teachers' training infrastructure of the country. Though islands of excellences exist, they are confined to few urban pockets catering to limited target groups. Despite the complex

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and multifaceted nature of the problem, non-availability of sufficient numbers of trained teachers has been a major reason for such a state of affairs (Parveez and Pandey, 2011). Poor quality of teaching has cascading effect on success rates and retention of the students. Quality, Access and Retention continue to remain a cause of concern mostly in remote schools catering to extremely disadvantaged communities (Chaudhary and Garg, 2010). There has been a long felt need to capacitate and empower the teachers at the grassroots which has become more pressing after the enactment of Right to Education (RTE). The challenges are huge as most of the schools needing immediate attention are in geographically isolated settings, linked through poor transport & communication networks and cater to socio-economically disadvantaged communities (Parveez and Pandey, 2013).

India desperately needs a strategic framework which can not only compensate for the lack of academic expertise at grassroots but also empower teachers to fulfill their responsibilities effectively. It is an enormous task. However seeing the huge numbers involved, scarce resources and weak training infrastructure, capacity building of teachers cannot be undertaken solely through face to face mode by displacing them from their workplaces thereby making it economically and functionally a non-viable idea. It is estimated that there are around two million untrained teachers, mostly concentrated in geographically inaccessible locations and present a major constraint in enhancing learning outcomes in the country. The satellite communication can effectively bridge this knowledge gap at an affordable cost which is so desperately needed in developing countries (Desai et al, 2009). It is now well realized that satellite connectivity has a potential to accelerate the pursuit for Sustainable Development Goals (Inmarsat, 2016). Post 2015 Developmental Agenda of United Nations have given a renewed thrust on the education (UNESCO, 2014). It is well realized and understood that, this important goal (SDG-4) has direct bearing on almost all the other Sustainable Development Goals which makes it the most important priority for achieving the Post 2015 development agenda (UNICEF, 2013).

Past couple of decades has witnessed a surge in such technologies which has created enabling environment to link urban centers to the rural areas. This chapter reviews the suitability of satellite communication for distance education interventions in India. The chapter is organized as follows

1. The part I describes why satellite communication is suitable for educational interventions particularly in developing countries. This part describes special context of developing countries, gives a glimpse of Indian school education and various experimentations which have been done in the field of satellite communication in school education.
2. The Part II reviews Rajiv Gandhi Project for EduSat supported elementary education (RGPEEE) where authors have been involved in Content Generation, Monitoring and Management of the project and highlights its existing status.
3. Part III reviews the new perspectives emerging from RGPEEE.
4. Part IV summarizes and gives recommendations.