A SATELLITE EDUSAT: CHANGING THE STATE OF EDUCATION IN INDIA

Nidhi Garg
INTRODUCTION

- Indian Government launched a satellite named EDUSAT for imparting education to both the rural and urban population of India.
- It provides live audio-video interactive sessions between student and faculties.
- Online classrooms, virtual schools, evening coaching classes, radio and television based classes are the new modes of educating people living in areas with poor infrastructures and electricity.
EDUSAT- A NEW BEGINNING

- Launched on 20 September 2004[1]
- Geo-synchronous satellite
- It is co-located with METSAT and INSAT-3C
- The mission life is minimum 7 years.
- The downlinks provided in schools are provided with solar power facility. Which makes the project green.

Potential Use of EDUSAT

- Video Conferencing
- Night time Loading at Receiving end
- Webcam as Return Link
- Telephone as Return Link
- Internet as Return Link
- Radio Broadcast
- Talkback Channel as Return Link
EDUSAT- CHANGING THE CONVENTIONAL EDUCATION SYSTEM

- The mission is monitored by ISRO (Indian Space Research Organization) and also the Sarv Shiksha Abhiyan [2]
- The hardware required at community level is a computer system with a webcam, mike and speaker and LAN for internet connection. Projectors, screen, Osprey Card, NVidia Card[3] are the technical requirements
- Its network is spread through schools, universities, state capitals and places with only its receiving terminals

TWO WAYS:- SYNCHRONOUS AND ASYNCHRONOUS

- **Asynchronous** is through CD-ROM, document and e-books, bulletin boards etc. these can be used at any intended time.[4]

- The **synchronous** mode is under use when a teacher is guiding and the students have to be present in the temporary classroom to listen and reciprocate his views and answers.

LITERACY IN INDIA FROM 1951-2011

THE PROBLEMS FACED:

- Huge *youth* percentage in total population.

- **Literacy** rate in India is quite low.

- A huge population resides in *rural* India.

- Literacy rate of *women* is too low; specifically in rural area.

- No proper infrastructure for *schools*.
ROLE OF EDUSAT: STATE-WISE
HARYANA

- 3.8 meter antenna for uplink at Panchkula[6]

- These lectures are received by 9000 Primary Schools, 1250 Secondary Schools and 92 Government-aided College through Satellite Interactive Terminals.

GUJARAT

- 22,000 primary schools were linked to the satellite[7]

- The Chief Minister of Gujarat is using EDUSAT as a channel to interact with 40,000 teachers once every month

- A network for blind people’s association was formed using this satellite covering 10 schools

EDUSAT aims to provide the following functions in Gujarat

- A uniform primary education to all the rural schools.
- Provide training to teachers about the latest teaching technologies.
- Providing training to health-care staff especially nursing.
- Helping the blind students by making specialized lectures for them.
Karnataka

- Separate e-learning center is established in Visvesvaraya Technological University (VTU) where all the 120 engineering colleges are linked up via EDUSAT[8]
- Web-based e-learning have prepared the course for 12 full semester subjects
- With the help of a scheme named “Sarva Siksha Abhiyan” has covered 885 primary schools

Education Reform in Karnataka: Two Pedagogies for Development http://dx.doi.org/10.1007/978-94-007-2669-7_4 Springer Netherlands 2012-01-01
Sriprakash, Arathi 47-69
KERALA

- The first state to use EDUSAT in 2004 [9]

- A dedicated EDUSAT lab was set up and introduced the concept of virtual university.

- After being associated with Kerala University, live interactive sessions have started with students to impart quality education.

PUNJAB

- 2960 schools of Punjab were linked to EDUSAT[10]

- A studio is built to facilitate the smooth working of the e-learning activity.

**MADHYA PRADESH**

- Most advanced use of EDUSAT
- provide training to the forest officials[11]
- 52 Satellite Interactive Terminals (SITs) have been set up for 27000 forest employees and forest communities

http://www.ijsce.org/attachments/File/v2i4/D0851072412.pdf
INCLUDING ARTIFICIAL INTELLIGENCE IN SATELLITE FOR FUTURE

- It can simulate and recognize the change in number of students per class.

- They also store information on the level of questions being asked by the students in a class.

- Framing of questions, their evaluations, allotment of faculties, deciding the syllabus all can be done in an automated manner by including advance technology in this satellite like AI.
CONCLUSION

- This mode of providing education to masses with very less resources has proved to be highly beneficial for all the developing countries.
- A small investment that was done for development of this satellite has proved to be the best asset in the Indian Education.
- Due to its overwhelming success, we should expect that there would be more countries which will involve themselves and there will be a day where a group of satellite can serve the whole of world for all its educational need.
THANK YOU

QUERIES?