The Digital StudyHall

Abstract

Digital StudyHall (DSH) is a research project that seeks to improve education for the poor children in slum and rural schools in India. In a nutshell, think of its technical approach as the educational equivalent of Netflix + YouTube + Kazaa.

We digitally record live classes by the best grassroots teachers, transmit them on the "Postmanet" (effected by DVDs sent in the postal system), collect them in a large distributed database, and distribute them on DVDs to poor rural and slum schools. Education experts and teachers use the system to explore pedagogical approaches involving local teachers actively "mediating" the video lessons. By harvesting a "viral phenomenon" of community participation, DSH aims to help train teachers and deliver quality instruction to underprivileged children. The project is a collaboration between computer scientists and education experts. The main aspects of DSH are:

- A "people's database of everything";
- A network of hubs and spokes;
- Mediation-based pedagogy;
- A practical infrastructure for sharing community-generated video;
- A “hybrid” network integrating SMS, voice, radio, and video for reaching the vast under-served population;
- Other applications including agricultural extension and frontline health worker training and support.

A live deployment of DSH has been operating in India since the summer of 2005. As of spring of 2007, we run pilot "hubs" in three cities in India (Lucknow, Bangalore, and Pune), covering approximately 30 rural and slum schools. And during this time, we have accumulated about 600 recordings of lessons in English, math, and science, in Hindi, Kannada, Marathi, Tamil, and English, and about 400 other pieces of content including science courseware, digital stories, and recordings of drama performances, all of which have been contributed by grassroots teachers, students, NGO staff, and other volunteers (such as retired university professors and scientists working for government labs.) We have also started applying the same approach to agriculture extension work (Digital Green). Today, DSH is still a young research project, as we continue to work on rigorous evaluations and seek to understand many outstanding questions. We have, however, already seen initial promising signs, and we hope to eventually scale up the system to cover a far greater number of children, contributing toward the Millennium Development Goal of universal primary education.