The Digital StudyHall

Rural India

Educational Challenges in Rural India

Lack of qualified teachers
Poor infrastructure
Teacher absenteeism

Poor teaching techniques
Few books or supplies

Schools

Sewa, UP

Chinhat, UP

Digital Study Hall

Record lessons at central school

Facilitators play a key role

Replay lessons at rural schools
**Digital StudyHall**
- DSH Partners with Educational Centers of Excellence
  - Radiate their excellence to surrounding slum and village schools
- First DSH Partner: StudyHall Private School in Lucknow
  - Employs many excellent teachers
  - Afternoon school program for neighboring slum children

**Project Background**
- Project started by former Princeton Professor Randy Wang
- Initially established at StudyHall Private School in Lucknow, India

**Project Partners**
- Digital StudyHall
- StudyHall Private School, Lucknow, India
- Microsoft Research India
- University of Washington, Department of Computer Science
- Local centers of excellence

**Digital StudyHall Hubs**
- Lucknow, India
- Pune, India
- Bangalore, India
- Sulagiri, India

**Capturing Pedagogy**
- How do we distribute excellent teachers?
  - Typically centralized at private schools
- Build a database of excellent teachers
  - Deliver sequences of classes from the government curriculum

**Lesson Database**
- Videos of live classes, by best teachers
- Of all subjects
- Of all grades
- In all languages
Videoing live classes

- Live instruction and interaction with students

Lessons based on state curriculum

- Based on state government textbooks
- Carefully planned coherent sequences

Recording of Live Lessons

- Highly interactive, with lots of:
  - Questions and answers
  - Role playing
  - Activities

Broad Range of Educational Content

- Freely available, not just the index, but the content itself

Matching student background

- StudyHall morning sessions
- StudyHall after school program for slum girls
- Madantoosi (village) school (public)

Just watching TV doesn’t work
Mediation Based-Pedagogy

- The teacher and the digital lesson form a team
- The teacher is the most important part
  - Digital lesson provides the framework
  - Teacher engages the class, conducts activities

Training for mediation

- Motivated teacher took own initiative
- Uses the system to train/teach self
- Abandons crutch during live lessons
- "Graduating" teachers: the ultimate success

Different uses of lesson material

- Community-based
- Video-centric
- A goal of a database of “everything”

Why being video-centric is key

- Society: low literacy rate
- Content production: easiest to scale
- Effective in capturing pedagogy and showmanship of great teachers
A Network of Hubs and Spokes

- Networked centers of excellence
- “Radiating” content and methodology into neighboring slums and villages
- Content in local languages

Key technologies

Digital Video
- Relatively cheap digital video cameras
- PC Software for video editing

Cheap replay devices
- Televisions and DVD Players

Content distribution by DVD
- Central database of recorded lessons
- Send selected lessons on DVD

Digital Green
Digital Study Hall for Agricultural Education

- Compost Pit
- Rice planting for water conservation

Digital Green Screening

- Public square
- Village house

Digital Green

- Video Replay
- Database of Agricultural content

Digital Study Hall site

- Partner with established educational program
- Hub and spoke model
- Central site
  - Strong teachers
  - Interested in educational excellence and outreach
  - Available teachers to record lectures
  - House recording technology and database
  - Hold teacher training sessions
- Established connections with remote sites
  - Facilitators to conduct lessons

Equipment and Infrastructure

- Central site
  - Digital recording equipment
  - Computers for video editing, data based, DVD production
  - Reliable electricity
- Remote sites
  - Replay facilities (TV + DVD Player)
  - Electricity while lessons are shown

Thank you!

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