Can virtual teachers plug the educational divide?

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(PhysOrg.com) -- Bringing more technology into the classroom might strike fear into the hearts of traditional educationalists, but one academic believes it may just hold the key to solving a worldwide problem.

“There will always be areas in the world where, for whatever reason, good schools and good teachers will not exist," explained Sugata Mitra, Professor of Educational Technology at Newcastle University. “This problem is not going to go away or get better without intervention, therefore we need to be looking for alternative forms of teaching to ensure children do not miss out on a good standard of education.”

Professor Mitra’s current work began with his ‘hole in the wall’ experiment ten years ago, which inspired the Oscar winning film Slumdog Millionaire and involved putting a computer with an Internet connection into a Delhi slum. In just a month, children with no prior knowledge of computers or English had become computer literate.

This clearly showed that, even without direct input from a teacher, if there is an environment that stimulates curiosity, it is possible for children to teach themselves and share pertinent knowledge. Professor Mitra called this process “minimally invasive education”.

He has now taken existing technology a step further and is using Skype - software which allows people to talk and see each other over the internet for free - to bring teachers into schools in remote or undesirable locations.

Using Skype, Professor Mitra is able to teach a class in the Hyderabad region of India without leaving his office in Newcastle, UK.

His work in this field has now taken an unexpected turn, as pupils in the M.A. Ideal school (a private school for children from poor backgrounds) have a very clear idea of what they want from the technology.

“When I last visited India I asked the children what they would like to use Skype for most, and I was very surprised by the answer,” said Professor Mitra. “They wanted British grandmothers to read them fairy tales, and had even worked out that between them they could afford to pay them the equivalent of £1 a week out of their own money.”

Professor Mitra is now looking to recruit British grandmothers who would be willing to give up a few hours a week to read to the children.

In the Skype sessions, a life-size image of the teacher or storyteller is projected onto a wall in the school (research has shown that this makes a huge difference to how well they learn) and they can ‘interact’ with the pupils in real-time, as the class appears on a large screen in their office or home.

During his research Professor Mitra discovered the issue of ‘remoteness’ plays a key role in how children acquire knowledge. In India, he discovered the quality of English declined the further the school was located from an urban area. However, this was also a problem in urban areas, where a different kind of ‘remoteness’ was evident: that of extreme social divides between the lower and upper classes.

The strongest factor affecting the poor results in these Indian schools were the teachers’ own desire (or lack of) to be in that school. The poorest schools were not necessarily the most financially poor, but ones where teachers perceived that they were working in remote, undesirable

areas.

“Financial incentives are no good if the teacher is sitting there wishing they were somewhere else - children sense these things and it has a knock-on effect on how they learn,” explained Professor Mitra.

“Technology should not been seen as a threat to teaching but an asset. Computers cannot replace good teachers but they can get a high standard of education into the schools where they are needed most, while still allowing teachers to live where they want to.”

Professor Mitra is now looking to set up educational facilities in remote areas of India where groups of children can organise their own learning to pass the government high school examinations without the need for a teacher.

Provided by Newcastle University