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MEDIA RELEASE

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Remote control physics labs in school classrooms?

La Trobe launches next generation approach to science education

La Trobe University has a reputation for innovative and high-tech education. Its latest revolution in e-learning upholds this tradition.

This week the University launched <u>FAR Labs (Freely-Accessible Remote Laboratories)</u> which enable high-school students throughout Australia to control state-of-the-art equipment at La Trobe's Physics Department and gain access to the Australian Synchrotron.

'This will benefit kids all over Australia especially those in rural Australia,' said one of the project's organisers, Dr David Hoxley. 'All they need is a computer with an internet connection, not an expensive trip to a university.'

FAR Labs was created in a bid to increase enrolments in Science, Technology, Engineering and Mathematics (STEM) subjects.

Designed to boost engagement between secondary schools and universities, the system also takes into consideration the different ways children learn.

'Giving high-school students access to next-generation resources and research might just inspire them to engage with these subjects for the long haul,' Dr Hoxley added.

The brains behind the project are La Trobe academics Dr Brian Abbey, Dr Hoxley and Professor Paul Pigram. It is supported by partner organisations Quantum Victoria, James Cook University and Curtin University.

'At its heart,' Dr Hoxley said, 'science education involves knowledge transfer, communication, engagement and commitment.

'The internet together with contemporary computing, visualisation and collaboration tools provides a remarkable platform for developing next generation approaches to science education.'

Australia's Chief Scientist Professor Ian Chubb said he hoped the FAR Labs initiative would inspire more students to study physics.

This follows last year's report by his office – Mathematics, Engineering, and Science in the National Interest.

'We identified how the teaching of science and mathematics in an inspiring way might attract more students to them.

'An initiative like FAR Labs is a great start. I hope universities and secondary schools around the country can introduce projects like this on a significant scale,' Professor Chubb said.

Dr Hoxley said: 'The most effective way of increasing student numbers in science and maths is to engage them directly in the university environment – as early as possible.'



He expects the project to have an immediate and measurable impact on secondary education and increase the number of students who choose to study science.

'Our kids learn in a variety of ways: reading, watching, doing or listening. It is almost impossible for teachers to provide all these mediums in a single class.

'FAR Labs material can be accessed in all of these formats, enabling the student to choose how he or she best learns,' he said.

Initial subjects available include the power of different types of radiation, structural analysis of materials and environmental science issues.

Apart from virtual hands-on lab experiences for students, teaching materials and technical notes can also be downloaded. This will allow students and teachers to choose a level of engagement appropriate for their needs and abilities.

'Educational paradigms shift every so often and today we are witness to the e-learning revolution,' Dr Hoxley concluded.

The initiative is government funded under the Australian Maths and Science Partnership Program (AMSPP).

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Interview

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PARTNER ORGANISATION







MEDIA OPPORTUNITY

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