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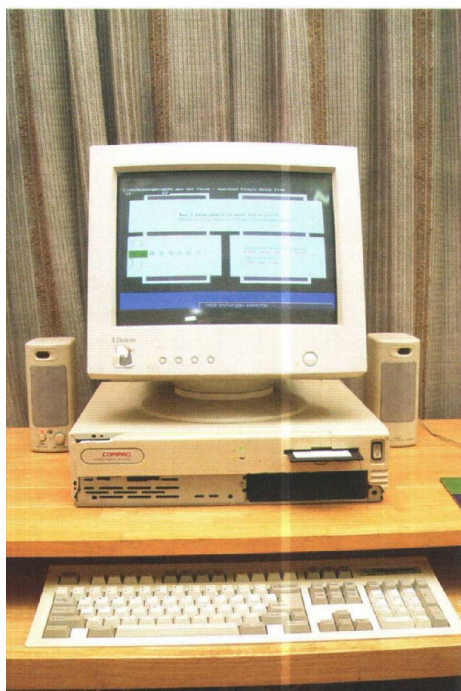
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## TRENDS

# Practical tech, not high-tech!



**W**hile covering MIMOS Technology Preview 2008 at the Palace of the Golden Horses on 30th June, I got to talking over lunch with Alan Foo Ho Kok, managing director and principal founder of startup company Paperless Homework.

Paperless Homework's product is all about distance learning on computers and indeed yes - there're many others offering such applications but in my nearly 14 years of writing about information and communications technology (ICT), I've never come across an ICT company which adopted as sensible and common sense approach to technology.

Around the time MSC Malaysia was launched, vendor after vendor of distance learning systems were proposing solutions to Malaysia. For them to work well they required good broadband connections, which back then meant expensive leased lines.

In 1995, a Canadian networking equipment company Newbridge Networks was here to sell some really fancy distance systems using expensive ATM (Asynchronous Transfer Mode) connections to Malaysia.

Most of Canada's about 30 million inhabitants live within 160km north of its border with the United States, while its vast northern regions are sparsely populated. For example, the Northwest Territories has a land area of 1.1 million sq km (1.3 million sq km including water) with a mere 41,464 inhabitants according to the 2006 census.

Over 55% of them are aboriginal peoples and in such situations it's not uncommon to find small, remote settlements of 50 or fewer people whom

the government must provide education and healthcare, so distance learning and telemedicine enable the government to provide these services, instead of flying a teacher or doctor in and out of these remote settlements for a few days each week.

Malaysia on the other hand has the equivalent of the population of the whole of Canada living in a 328,550 sq km area, which is smaller than the 405,720 sq km of the province of Newfoundland and Labrador on Canada's eastern coast. So how should something applicable to Canada's particular circumstances be applied lock, stock and barrel to Malaysia?

But the Malaysian government thought so and under the SchoolNet project, 10,000 schools nationwide were provided with ADSL wireless broadband and satellite connections to the Internet.

However, many homes, especially in remote and outlying areas don't have broadband access or if they do, it's usually slow and unsuitable for distance learning online with all those fancy web-based animations and while stand-alone CD-based courseware could be an option, it's prohibitively expensive to let every student take a CD home.

Moreover, Malaysia's broadband penetration was 25% of households in 2006 but this was later scaled back to 50%, with a new focus on achieving 90%



household broadband penetration in the Klang Valley.

### Rich man, poor man

"We believe in practical-tech, not high-tech," said Alan Foo. "You cannot bridge the digital divide and hope to reach the poor man using rich man's tools, such as CDs, web videos and broadband."



Armed with pre-seed funding from the Cradle Investment Programme and the Multimedia Development Corporation (MDEC), Paperless Homework developed its All Genius Educator (AGE) computer-based learning application.

AGE runs on the user's PC under Windows 95, 98, 2000, ME and XP and the courseware or exercises sent to students as e-mail attachments, on diskette or in thumb drives are typically between 20KB and 30KB in size.

So a student with a dialup connection at home can receive the lesson module in a few seconds or minutes and spend several hours studying, rather than spend several hours downloading the module for a few minutes of study.

Moreover, since AGE runs on the PC offline, there's no need to be always-connected to the Internet to use it and even if only a few people in a remote area have Internet access, students there can copy and share the lesson or exercise assignment with the others on diskette or thumb drive.

The animated multimedia lessons are a combination of text, simple line

graphics, simple animations, tables and text-to-speech conversion – basically what you got on 1980s era DOS PCs with graphics display or Windows PCs in the early 90s and these tiny modules are written using the Visualgram programming language developed by Paperless Homework.

It enables the modules to run within a MS DOS window within Windows and uses Windows utilities such as text-to-speech conversion, Excel spreadsheet, Notepad text editor and so on.

"Developing the modules as DOS applications avoid the bloat which would have occurred had we written them for Windows," said Foo.

AGE modules, over 400 e-books, dictionaries and so on can always be downloaded from [www.paperlesshomework.com](http://www.paperlesshomework.com) or [www.fooohokok.com](http://www.fooohokok.com), though The AGE CD, which can be bought from associates

and dealers comes with modules for preschool, additional mathematics, science, English language, Chinese conversation, 88,000 word English dictionary and so on.

It also includes the freeware Speakonia text-to-speech software, Irfanview freeware graphic viewer and simple photo editor and the freeware Wordweb dictionary.

Alternatively the ISO image of the CD can also be downloaded from the above websites but a broadband connection would be needed, after which it can be freely burned to as many CDs and distributed among students or friends.

Users can also freely download and install AGE Homework Tools, all the associated software components, course modules, e-books, dictionary and so on individually.

When installed and run, all AGE users will be asked to register to obtain the password code giving them rights to use the software for 12 months or they can use it for 30 days or run it 30 times.

Payment can be made by purchasing prepaid voucher, via PayPal, credit card or bank transfer and Paperless Homework is charging RM35 per year within this year and plans to charge RM70 per year thereafter.

On 27 June, Paperless Homework announced it had contributed RM18.5 million worth of AGE software and tools to 5,321 schools through the state education departments of Perak, Kelantan, Pahang, Kedah, Terengganu, Johore, Negeri Sembilan and Perlis, which had responded to its offer and booked the CDs. Each of these schools would receive 50 licenses each.

"We'd allocated 100,000 free annual licenses for school in those states but their actual uptake was 266,050 licenses which we still gave them for free," said Foo.

Education departments in the rest of the states and Kuala Lumpur did not take up the offer but Paperless Homework still called up each school in these states to offer them two CDs – one for their library and one for a teacher.

"That's to fulfill our commitment to not leave any child out and moreover not using paper for lessons and homework helps save the environment," said Foo.

Paperless Homework is similarly offering AGE to schools in China, India and Indonesia and has attracted much interest from countries in Africa.

"We practice social capitalism where we need to make money while at the same time benefiting society," said Foo, a former banker and IT entrepreneur since the 1970s. **S**



**Charles has been a technology journalist for 12 years, after spending the same amount of time in the IT industry**