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**Education IT**

## **ONE TABLET PER CHILD POLICY: STEPPING UP EDUCATION REFORM**

By [Thanya Kunakornpaiboonsiri](#) | 15 January 2013 | Views: 4699

*Group Captain Surapol Navamavadhana, Advisor to the ICT Minister in Thailand, in an exclusive interview with FutureGov, recounts the rationale and the process involved in the initiative to make nearly 900,000 tablet PCs available to all first grade students nationwide.*

An ambitious election campaign promise realised as a government mega project, Thailand's One Tablet Per Child Policy (OTPC) is a crucial milestone in the country's education reform. It has the aim of empowering young students with latest pedagogy and learning experience regardless of location, distance, and socio-economic standing.

A total of THB 3 billion (US\$ 96 million) were spent on the world's largest order—nearly 900,000 tablet PCs for education, from which the government has successfully placed 868,886 in the hands of first grade students countrywide.

“We are the pioneers in ordering a large number of tablets and handing them out to elementary students,” says Gp Capt Navamavadhana.

Navamavadhana was involved in all elements of the OTPC process. He is a committee member and Assistant Secretary to the OTPC Policy Commission, a chairman of Technical Sub-committee purchasing the tablets, and a technical advisor to the Tablet Inspection and Reception Commission.

The OTPC project is a collaboration between the Education Ministry (MOE) and ICT Ministry (MICT) in which the former is responsible for the project's implementation and the later for the purchase of devices, and software integration.

Navamavadhana headed his team's visit to China to carefully inspect, compare and select appropriate devices. Finally, the MICT decided to spend THB 2460 (US\$82) per device, each of which features Google's Android 4.0 Ice Cream Sandwich operating system, 1GB RAM, 1.2 GHz single core CPUs, and storage capacity of 8GB. The MICT was given from February until early November, 2012 to complete market research, purchase, software development, and distribution of all the tablets including an additional 55,000 tablets with different specifications for teachers.

Although the purchase was completed and the devices have been securely delivered to students, Navamavadhana cannot sit back and feel relief. For him, this is merely a small step towards reforming the country's education system.

**WHY TABLETS?**

The Thai Government sees the introduction of tablets in the classroom as not only bridging the digital divide between urban and rural or rich and poor children, or to encourage students to engage in self-learning, but also as providing an equal opportunity for students to access the same learning material and knowledge.

“Different students have different capabilities and speeds to understand something. Some kids need a teacher to repeat the lecture twice, others may need it repeated five times,” he says.

He compares students with tablets as having a gentle teacher whom they can ask repeated questions of anything they do not understand without fearing of being rejected or criticised.

## **DEVICE MANAGEMENT**

Proper management of pedagogical processes, content, and users needs to be put in place to ensure best practices.

Therefore, big challenges lie ahead for both the MOE and the MICT to carefully turn this potential into realised benefit.

Navamavadhana says that the government is allocating an additional THB 300 million (US\$ 9.7 million) for mobile device management and building educational data centres. Of the total budget, THB 120 million (US\$ 3.87 million) will be allocated to installing mobile device management software to administer children’s access to content.

The device management software will run alongside Learning System (LSystem) pre-installed in the devices. Regulated by Office of Basic Education Commission (OBEC) under the MOE, the LSystem acts as a data warehouse to keep all e-content as well as the student’s learning performance and progress. The student’s log file will contain crucial information for the government and relevant organisations to evaluate and further leverage the OTPC project in the future.

Apart from deploying mobile device management software, the MICT will also set up a monitoring team by October to ensure that a close watch is kept over the use of technology, adds Navamavadhana.

## **E-CONTENT: SCHOOLNET & EDUCATION CLOUD**

The OBEC is responsible for the content preparation—it has converted learning material for desktops into formats compatible with the small tablets. The e-content can be divided into five core modules and eight e-books, Navamavadhana explains.

The MICT built software to navigate and organise content with a child-friendly interface. When the device is on, children will see four main categories indicated by different colours for easier navigation, and make it more convenient for teachers to refer to the content and teach children to differentiate colours. Pink colour stands for subjects, orange for e-books, green for multimedia, and blue for applications.



“I designed the teaching method for teachers by using different colours. This way, teachers can even conduct the class without having tablets in hand,” Navamavadhana comments. Asked about the implementation of tablets in schools without an access to internet, he says that teachers at these schools will focus more on teaching pre-loaded content in an offline mode.

“At schools with access to internet, students will be taught to search for more content from the internet,” he adds.

To further enhance the OTPC project in the national scale especially in the remote places, CAT Telecom under the MICT is expanding broadband internet access to cover every school under the “School Net” project. The nationwide coverage is expected to be completed by May 2013, says the advisor.

With School Net, students nationwide will have an equal opportunity to access larger pools of knowledge and learning materials. In addition, the MICT is now pushing ahead the project “Education Cloud” to be a knowledge gateway that will be accessed through School Net.

#### **NEXT STEPS**

To further expand the OTPC project to successfully reform Thai education, the government has in mind the idea of giving tablets with different specifications to students from different grades.

“7 inches for grade one to three, 8 inches for grade four to six, 9.7 inches for secondary students, and 10 inches for high school students,” he says.

More tablets are already planned to be given to students at other grades next year, he says. Starting next year, a higher specification of tablets for seventh grade students will be introduced. According to him, the students with tablets this year are encouraged to bring their devices home and share the experience with their parents. They will also bring the devices to the second grade.

However, the plan is subject to the outcome from the first OTPC project tried out with elementary school students.

## **THE FUTURE OF OTPC**

Navamavadhana explains what the government foresees as the final goal for OTPC: “In the long run, the system that we will develop to support the OTPC can be used as a human resource development platform.”

He explains that the platform will be comprised of a student database, learning content, and learning performance records that will be linked to a web portal where students can trade their performance points for gifts. This will incentivise students and encourage them to put more effort into learning. The system will also allow parents and the government to guide the students and supply them with the appropriate career advice.

“If we want more scientists, we can double the points allocated to science subjects and encourage more students to focus on this area,” he suggests.

## **FEEDBACK & CHALLENGES**

Asked if he is ever weary of the challenge, Navamavadhana immediately says that the project still has challenges to overcome. “Problems are there to be solved, not to discourage us, as we focus more on the bigger picture of how the project will benefit the majority of students,” he remarks.

Feedback from the majority of students—especially in remote places, where tablets are a novelty—has encouraged him and his team to continue with the OTPC project.

Local media agencies have reported that most children have asked their teachers to expand the tablet classes as the tablets attracted their attention and made them enjoy the content more.

“Our goal is to reduce technology phobia in remote children and their families. Tablets will prove to them that there is nothing complicated about using technology. Instead, it is a tool for them to learn whenever and wherever they want,” he adds.

According to him, most teachers are adapting well and are trying hard to make the project happen for the benefit of their students. However, there are some challenges towards the change and technology acceptance that need to be achieved.

Regular trainings have been provided to teachers; they are being encouraged to come up with more e-content and will be incentivised for their work and effort.

## **WHAT HAVE BEEN FORGOTTEN?**

Asked what he could have done differently with the project, Navamavadhana offers that he would have appointed a Project Management Officer (PMO) who would have met with stakeholders to figure out their goals.

“We need to have a PMO to oversee the entire project, and be fully responsible to make it happen,” he adds.

“The OTPC project is not just about buying tablets, or creating content,” he explains, commenting that the OTPC is like a package consisting of hardware, network, software, ‘peopleware’ and facilities, and all need to be planned ahead and the budget needs to be well allocated to cover all expenses.

#### **FACT NOTE**

*The MOE spends around THB 20 Billion (US\$ 649.86 million) in subsidising books for state primary schools every year. E-content will help save up to 80 per cent of the costs.*

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On [17 January 2013](#) [Kanwal](#) wrote:

Hi, we are an Indian company having LMS system that supports both Online and Offline mode of Learning. For offline mode, we provide preloaded content (video lectures, animations, assessments etc.) to students in Tablet and if required (depending on content size) we use SD cards for storing content. The content is provided in the encrypted and secured format which is playable using our application and user credentials. This is a scalable model and can cater to the needs of as many users required for the project. The reports and analysis feature empowers teachers to track the performance of students. We will be more than glad to get associated in this project for providing LMS and software needed. For any query / information, you may reach us at [kanwal.arora@iprofindia.com](mailto:kanwal.arora@iprofindia.com)

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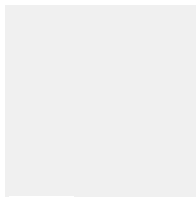
 

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