

Mother of the Internet is gloomy

Dr Kanchana is pessimistic and bemoans constant changes of the ICT Minister as a 'lost opportunity'

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In 1987, when the first issue of *Database* was being put together, Dr Kanchana Kanchanasut of the Asian Institute of Technology was busy registering a domain name with ARPA's then new and ground breaking ARPANET. But it was not just any domain name — it was the .TH top level domain.

Dr Kanchana today remains a professor and director of AIT's Internet Research laboratory, Interlab, and has been credited by many as being the "mother of the Internet" in Thailand.

A year earlier in 1986, the Asian Institute of Technology had just begun to exchange email once a day through the UUCP protocol with the University of Melbourne in Australia. UUCP was a simple pick up / drop type protocol. Later AIT switched to ACSNET, which could do file transfers and more. She credits Tomonori Kimura from the University of Tokyo for helping her bring email to Thailand.

Kanchana said that back in '86, the Asian Institute of Technology only had a few phone lines and they all had to go through a human operator, except for the one belonging to the president. In order to use a modem to call Australia, they re-routed the president's personal line for use afterwards. "We only told him about it three months later after the system was up and running in a stable way, when he had no choice but to agree to the project," she joked.

In '88, along with the .TH domain, Thailand got its first C-Class netblock, 192.41.170.0/24, which is still being used to this day at AIT. During the big address space reclamation programme a few years ago, Ican asked for the block back, but AIT refused on the grounds of its historical significance.

At the end of 1987, AIT also got its first Sun Unix box. Before that, it was using what Kanchana termed as a primitive Japanese Unix, not quite real Unix.

1987 also saw the start of a primitive — by today's standards — point to point UUCP-based mail network between AIT, Chulalongkorn University, Thammasat University, Prince of Songkhla University and Chiang Mai University. To pay for the telephone bills, international email would cost 50 baht for the first 500 characters and 45 baht for each additional 1,000 characters. Email to Bangkok was free, but Hat Yai would cost 10 baht per 1,000 characters.

"Chula, Songkhla and AIT were the really active nodes, and we were emailing each other every fifteen minutes just because it was so new and exciting," she said. Later, AIT held a seminar on UUCP with its partner from the University of Melbourne, Dr Robert Elz. Kanchana remembers many participants in that seminar who would go on to become some of the Thai IT industry's most prominent figures: Thaweesak Koanantakool (Nectec) Rom Hiranpruk (Software Park Thailand), Trin Tantsetthi (Internet Thailand) and Yuyong Teng-Amnuay (UUNet).

"These are the original trouble-makers of the Internet in Thailand," she bemoaned.

However, while batch email started at AIT,



Thai visitors collect information about a wireless Internet service at a launch ceremony of the facility introduced by Internet Thailand in Bangkok, July 30, 2003. Internet Thailand was one of the two ISPs that pioneered commercial Internet services in Thailand in 1994.

Thailand joined the always-on Internet much later, in 1990 or 1991, when the first "ping" was set up from Chulalongkorn to the US after Chula had acquired a leased line from the Communications Authority of Thailand.

Very soon after that the Internet played a major part in the shaping of Thai history in the eyes of the world. In 1992, during the Bloody May Massacre, Kanchana recalls how Thaweesak had arranged with Elz to initiate a data call from Melbourne to Thammasat University, literally next door to where the army had opened fire on civilians. Thammasat had set up a makeshift newsroom for journalists to report on the Bloody May massacre by email.

From then on, everyone knew the power of the Internet and many projects were initiated, such as Thaisarn and Uninet.

The commercial Internet started in 1994, when KSC and Internet Thailand finally managed to convince the Communications Authority of Thailand to grant them licences. "You have to give credit to Ajarn Srisakdi (Charmonman of Abac) for talking sense into CAT," she said.

But, despite all that was happening, things were not in place when the dot-com boom happened. Thailand lacked enough telephone lines and it was not until the ICT Ministry was set up in 2002 that CAT and the Telephone Organisation of Thailand (TOT) were coaxed into moving forward with providing broadband Internet on a large scale. Former ICT Minister Surapong Sueb-

wonglee had set a target of one million broadband subscribers by the end of 2004. This goal was not met, but it showed how committed the government was to the Internet.

Kanchana blames CAT and the TOT for moving too slowly because they had a monopoly and failed to understand new technology. "They never believe academics like us," she said.

Work started on Shin Satellite's iSTAR around 1996, with many of the Japanese designers visiting AIT and discussing design issues with Kanchana. iSTAR would have been much better if only ShinSat had listened to the academics who warned them about the severe delay inherent by having the switching done at the Lad Lum Kaew ground station in Pathumthani. Packet delay would have been minimised if Lad Lum Kaew was itself a national or regional Internet exchange. But the way it was implemented, each connection between different ISPs needs four trips into space, thus resulting in crippling latency and lag.

So what of the future of the Internet in Thailand? Kanchana now devotes her time to researching mesh Wi-Fi solutions. Project DUMBO, the Digital Ubiquitous Mobile Broadband OLSR (Optimised Link State Routing), is based on off-the-shelf standard Wi-Fi technology and was recently tested in the jungles of Phuket with moving nodes on elephants providing a stable connection.

The idea is to provide last mile access via these self-forming Wi-Fi meshes into rural areas that today do not have telephone lines. A single satellite

or leased line connection could be shared across entire villages covering huge areas.

Dr Kanchana is pessimistic about the future. She praised the last government for being the first to really understand technology, but feels that the understanding has fallen apart with constant changes of the ICT Minister. "It was a lost opportunity. We needed stability. One day in IT is like a year in other industries," she said.

So how does the mother of the Internet in Thailand feel about how the authorities today would like to control and censor her child? "Back in May 1992, there was no censorship, nobody stopped us using the Internet to tell the world of the atrocities that had happened. But censorship is not security. We need to educate people and ensure that they do not believe everything they read.

"This self-immunity and judgement is something that parents need to teach their children from an early age. Yes, we need to protect the weak, but censorship, done improperly, will lead us to a police state," she warned.

When the CNN web site was blocked to prevent Thais from listening to the Thaksin interview last month, Kanchana said she was sad rather than angry. "I was wondering if Thailand would become a new Myanmar. The old me of 20 years ago would have become angry, but now I am too old and tired. I would rather spend my energy working on mesh networking and providing access to the rural population," she said.