



TRACK III: E-EDUCATION

1. Status on development of e-Education of Thailand

The year 2000 brought about the era of education utilizing electronic medium, referred to as e-Education. Initially started by several Thai universities offering course registration through the Internet, e-Education quickly gained popularity. The Ministry of Education has been the driving force in the technological transformation of the education process, placing emphasis on the students. This resulted in the collaboration between the Ministry of Information and Communication Technology and the Ministry of Science in disseminating knowledge and providing training to the personnel of the Ministry of Education and other private organizations to promote the use of technology in education. This also gave rise to the coordination between universities and international organizations in creating education cooperation networking such as:

- Thaisarn which began service since 1991 focusing on the creation of computer networks linking various educational institutions and government offices to facilitate the research work by allowing data exchange with their overseas counterparts via the Internet.
- SchoolNet network which began service since 1995 connecting networks of various secondary schools to the Internet with a current count of 4,705 schools.
- UniNet network which links 131 universities which began service since 2002 with the aim to facilitate the exchange of academic and research knowledge.
- MOENet is the network of the Ministry of Education that links various offices under the Ministry of Education to increase administrative, management and training efficiency.
- EdNet connects the various existing networks such as SchoolNet, UniNet, and MOENet together to assure coverage at the school level and ensure that Internet is equally accessible for all students.

2. Strengths and Weaknesses of Thailand's e-Education Development

Strengths:

From the brainstorming of experts in previous meetings, the following can be concluded. Key strengths that help contribute to the successful implementation of e-Education are as follows:

1. Top executives have the vision and are dedicated to improvement.
2. The reformation of the management structure in the Ministry of Education is suited for implementing ICT.

3. The use of basic curriculum nationwide and the decentralization of curriculum development has been exercised in all regions with the same level of importance.
4. The Ministry of Education has under its direct supervision a specific taskforce responsible for utilizing ICT in education.
5. The Ministry of Education has educational institutions that can produce personnel with expertise on ICT.
6. The demand for using ICT in the learning and management process is increasing steadily.
7. The Ministry of Education has under its direct supervision the organization responsible for the production and promotion of ICT related media.
8. The free media policy has encouraged more competition in the production of various educational media allowing students and instructors to effectively develop the learning process.
9. More schools are supporting the development and the usage of ICT related media for education.
10. Educational institutions at the university and college levels are equipped and have the potential to become leaders in ICT.
11. The distance learning network via satellite is efficient, and the education network is being continuously expanded.

Weaknesses:

1. The ICT infrastructure readiness of the country differ widely when compared between various educational institutions and geographical locations.
2. Educational institutions in remote areas lack modern ICT equipment.
3. Purchase of ICT equipment for educational institutions has been very slow due to hindering state purchasing regulations.
4. The lack of qualified teachers in various regions of the country.
5. There is a shortage of ICT related media content and software for education.
6. Some educational institutions and organizations do not have Internet connection and websites.
7. The budget for ICT in education is very limited in many regions of the country.
8. There is a lack of standardization concerning the use of ICT for education.
9. There is no MIS, GIS standard and connections between each level.
10. The use of ICT in the development of learning and management process has not reached its full potential in many parts of the country.
11. The development of ICT lacks a clear, systematic approach especially in the sharing of ICT resources.

3. Legal problems on the development of e-Education

e-Education involves 3 major components that must be carefully managed namely:

1. The computer network
2. Learning Management System (LMS)
3. Content Management System (CMS)

These must also be protected by Intellectual Property Laws to avoid illegal use and copyright infringements. Another concern is the copyright issue when distributing educational material whether by uploading to the web site and downloading from the Internet. This must be debated at the legislative level to determine whether uploading and

downloading is a copyright violation or not. The Parliament, with this direct responsibility, has to carefully take into consideration the possible acts of the students or teachers who might intentionally or unintentionally violate intellectual rights. Furthermore, there must be an emphasis to find preventive measures while also crafting a mechanism that will not hinder educational opportunities for the students.

4. The expectation of the Parliament towards resolution of e-Education problems

First issue : The Protection of Intellectual Property

The legal use of copyrighted material (fair use principle) should be widely discussed in the Parliament to create awareness and clarity in educational institutions which will encourage schools and educational institutions to have the correct frame of thought concerning the use of educational information. This will lead to systematic and disciplined behavior that may allow for exceptions of copyright violation which should have the following elements:

1. The information is used appropriately
2. The information is used solely for education within the schools or between the students and the teachers without any business benefits.
3. The information is used in a manner that does not violate the benefits of the copyright owners. Or, the information is used under the permissive scope of the owner.

The accused or the defendant, namely the schools, will have to prove themselves whether they have committed the copyright violation or not since they are considered as juristic persons. Moreover, punishment may have to be set for the students or the teachers who inappropriately upload information to the Internet. (It is vital to consider whether the information is protected by copyright or not). This is because the impact of copyright violations on the Internet has far reaching effects in comparison to violations on other media. Also, since digital duplication has the ability to create identical copies of the information and is difficult to track the number of times such copies have been duplicated, copyright violation in this manner have grave economic impact on the copyright owner.

Second issue : Management and Implementation

The Parliament can help support e-Education by providing political support and establish clear and appropriate standards. Legislative issues must also be carefully considered since Thailand is still weak in many issues concerning intellectual property management. This may adversely affect its effort in setting standards for distance learning.

Although the promotion of information and communication technology enjoys support from the government and private sectors, the Members of the House of Representatives must display their political support and establish themselves as examples for the public. Leaders must have the determination in applying e-Education for use in the educational circle and must not only have policies or novel ideas for e-Parliament. It is vital to have specific projects and activities that can become role models for schools, teachers and students. Apart from this, the Parliament should be a catalyst in bringing change and continuously help in the accumulation of resources required for e-Education projects. This will clearly indicate to the public that the Parliament is dedicated to supporting e-Education

and want the people to become owners of the projects. Moreover, the initiative will create support in the development of information technology for the education sector which is the most influential sector in the development of national resources.

The Parliament can become an example in the use of information and communication technology in its operation and in the support for lifelong learning. Members of Parliament can talk about their actual experiences in knowledge building and research. This will impact schools, teachers and students at a macro level by communicating to them that even leaders of the nation are interested in using information technology to extend their knowledge. Moreover, the Parliament must sustain its effort in supporting e-Education and extend the use of information and communication technology to the work within the Parliament itself. This will involve and help the public to gain knowledge as they follow up on the news of the Parliament through the use of information technology without the limitation of time or space (location).

Recommendations to the Parliament

1. The Intellectual Property Protection Law should be amended in favor of the education circle.
2. Efforts should be made in bridging the digital divide between the urban community and the rural community.
3. Importance must be given to local knowledge by providing legal protection and enabling the development of such local knowledge by utilizing technology.
4. Support in negotiating in the exchange of contents with other countries to better utilize knowledge resources.
5. Encourage knowledge dissemination to the people and support the conversion of knowledge into capital.



E-ED-SOC

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**TRACK III: E-SOCIETY
(Data Protection and Internet Security)**

1. The developing status of e-Society in Thailand

The current advances of information technology, especially the internet, has created numerous benefits; but conversely, if used the wrong and ill intentioned manner, may be extremely detrimental socially, economically, culturally and can even affect the stability of the nation. It is imperative therefore, that Internet users be acutely aware of the various dangers lurking therein and not fall prey to hackers or crackers.

Many foreign agencies have conducted research and collected statistics quantifying the damage caused by computer crimes, such as stealing computers and releasing viruses. However, Thailand has no such agencies that are directly responsible for monitoring the damage caused by such computer crimes. Presently, the Information Technology Data Center at the Office of the Royal Thai Police has been assigned with the task to provide e-Education on computer crimes.

Existing measures to prevent and suppress computer crimes:

1. **Technological Measures.** This includes the installation of intrusion detection systems or the installation of firewalls to prevent unauthorized access. However, the computer operator must be disciplined to avoid any oversight or abuse which would render these effective technological measures redundant.
2. **Cooperative Measures between Various Organizations.** Presently NECTEC has set up a liaison center to maintain the safety of computer users in Thailand (Thai Computers Emergency Response Team /ThaiCERT). As an assistance agency, it offers assistance and academic information concerning the verification and security maintenance of computer systems to interested parties both in the public and private sectors. Additionally, it also serves as the agency responsible to collate reports of computer security violations.
3. **Societal Measures to Address the Current Problems.** The National Information Technology Committee plays a leading role by involving related public and private agencies to cooperate in prevention of problems. Important initiatives include:
 - 3.1 The maintenance of internet user records for the investigation and collection of evidence, the blocking of inappropriate materials and attending to reports of such violations.

- 3.2 Joint effort in the drafting of the Computer Criminal Code to ease societal problems and reduce long term damage. Currently the draft for the Computer Crime Act has been completed and is in the process of obtaining the Cabinet's approval.
- 3.3 The establishment of the "Report Center" at the web site <http://www.cattelcom.com.net/watch-dog/index.html> to receive reports of those disseminating obscene content and transmitting inappropriate information through Internet network

2. Strengths and Weaknesses of Thailand's e-Society Development

Strengths

Regarding the protection of individual privacy and security on the internet, Thailand enjoys the following strengths:

- There exists an agency that is responsible for the monitoring and suppression of computer crimes under the direct supervision of the Royal Thai Police.
- Thailand gives importance to computer crime law which is currently in the legislative process and will soon be enacted.

Weaknesses

- The number of qualified staff for supervising the activities of computer users on the internet is limited.
- Thai computer users have varied levels of knowledge. This compels the process of monitoring and suppressing computer crimes to require a broad range of legal rules and regulations to sufficiently encompass the spectrum.
- There is a shortage of media and software that can be distributed to computer users through the internet to help protect computer crimes.

3. Legal problems relating to the development of e-Society

Presently the Computer Crime Law is still in the legislative process and yet to be enacted. Without this law which defines the penalties for crimes committed and regulates preventive and suppressive measures, the law enforcement agencies cannot prosecute those found guilty of committing computer crime to the full extent of the law.

4. The role of the Parliament in solving e-Society problems

- 4.1 **Legal preventive and suppressive measures** Since the parliament plays a crucial role in the legislative process, it is imperative that it speeds up the enforcement of legal measures and formulates the policy of the Thai government to combat computer crimes which is increasing rapidly with the widespread use of the internet.
- 4.2 **Apply societal penalties to the wrongdoer.** Due to the intricacies of personal data protection and security measures on the internet that require very systematic approach whilst placing utmost importance on the rights and liberty of the public, in some circumstances, it may not be possible to legally prosecute the person who has

committed the computer crime. For this reason, the parliament may need to apply societal penalties to instill shame on the wrongdoer which may in the future serve as one effective measure for the suppression of computer crimes.