

Toward Social Equity and Prosperity: Thailand IT 2000

Sumeth Vongpanitlerd*

DEFINITION OF INFORMATION TECHNOLOGY (IT)

The term IT is broadly defined as a wide range of technologies used in the collection, storage, retrieval and processing, as well as transmission and representation, by way of electronic means, of information of all forms: be they voice, data, text, graphic, or still and moving images. Invariably, IT would, therefore, include a wide range of new and old technologies, from POTS, microelectronics, computers, facsimile, software, databases, AI, GIS, satellite technology, cellular telephony, optical fibers, to HDTV, interactive multimedia and video-on-demand, to name just a few.

In a broader sense, IT can be described as a "new techno-economic" paradigm affecting the management and control of production and service systems throughout the whole economy, based primarily on the convergence in computer telecommunications and broadcasting technologies, which have and will continue to drastically reduced the cost of information processing and dissemination.

So, "Is IT Policy a Must for Most Countries? and Why?"

In the coming era of information society at the dawn of the 21st century, information will inevitably become the fundamental factor of production and wealth creation. As such, the ability to make use of the all pervasive technology, such as IT, apart from a number of other endowments that any one nation possess, is certain to determine a nation's capacity to generate economic growth and enhance the quality of life for its citizens. The reason is very simple:

With computer and automation technologies, IT can extend man's intellectual capacity, as well as free mankind from routine, repetitive or dangerous types of works. With telecommunications technology, IT can overcome distance, geographical and time barriers, and, in many instances, can become a substitute for traveling.

Therefore, if exploited fully, IT opens up a whole world of new opportunities to spread economic activity, democratic principle, wealth creation and distribution, and social benefits to every corner of a country. Take the case of a developing country such as Thailand. IT could reverse the migration trend to the Bangkok Metropolis and relieve the city of some of its ensuing social ills, massive daily traffic gridlock, and environmental degradation. IT can definitely work to reduce traffic and pollution, by facilitating telecommuting (or teleworking) from home or from a nearby telecommuting center, by providing citizens and businesses everywhere, in Bangkok and in the countryside, with a choice to do "teleshopping", or "telebanking", or obtaining such services as "tele-education", "tele-medicine", and many other public services on-line, or even allow all Thais to "televote" in matters of public interests, thereby strengthening democracy and good governance.

Amid the beautiful promises, however, lies the darker side of IT, if we are not well-prepared, for IT can pose threats and create new kinds of social ills, like violation of personal privacy, computer crimes, information overload, cultural domination, or alienation, etc. The case of pornography on the Internet only serves to remind all of us too well of the negative side of technology. But, above all, instead of narrowing the gap between the rich and the poor, the urban and the rural, which IT definitely is able to do, an absence of a proper policy framework in IT is likely to divide society further into groups of information "haves" and information "have-nots", as it is all too easy, and only natural, for the more affluent and

better-educated segments of any society to gain most from the use of IT.

Thus, having a well-conceived national IT policy is seen as being necessary to ensure that development of IT is properly geared toward achieving broader national social and economic objectives, in addition to wide-spread use to increase productivity of individuals, business, or even government, and, at the same time, to guard against or to lessen the negative impacts that already exist or are yet to emerge.

The Two Major Trends in IT Policy

Currently, there exist two important trends regarding IT policies, namely: a marked shift from IT creation to IT application, and an evolution from "policies in IT" to "IT policy."

Included under the first trend is the shift from a supply-orientation policy that centers around the promotion of IT industry toward one that is "user-oriented", so as to focus on the widest and most effective way to diffuse IT applications on a more equal footing, so that minority groups and the less privileged are not deprived of a fair distribution of benefits and skills necessary to gain those benefits.

The second and concurrent trend sees the gradual convergence of formerly separate policy areas now taking place, at least among the OECD countries. Nine such policy areas have been identified as especially relevant: science and technology, IT use in industry, IT production, data communication and networking, education and training, labor, legal, trade in IT goods and services, and international cooperation ([Figure 1](#)). In other words, as IT diffusion becomes more wide-spread and the application increasingly pervasive, the breadth of IT policy, therefore, widens to cover previously separate policy areas of science and technology, industrial, and social policy ([Figure 2](#)).

According to a World Bank study, in the other dimension of IT policy related to IT acquisition, adaptation and diffusion, there are some six key policy areas and choices likely to face most developing countries, namely:

1. Supply and diffusion of IT
2. Development of necessary resources: applications and infrastructure
3. Human resources development to exploit IT and meet new skill demand
4. Equitable access to national information resources and services
5. Government role as a major user and promoter of IT, and
6. International policy issues in IT.

The first policy area would entail the choice between a supply-oriented or user-oriented policy. The second focuses on the need to prioritize sectors for applications and identify infrastructure requirements and strategies to support priorities. The third concerns the necessary skills and manpower to support IT development. The fourth is associated with availability and access to IT resources. The fifth involves the role of government as a major user of IT. The last major policy area addresses such international issues as trans-border data flows, international standards, information ownership and intellectual property, and differing legal systems.

The vision for Thailand's first national IT policy is based principally on an overriding objective to promote the exploitation of information and the application of IT as a means to support the country's social and economic development efforts in ways that create equitable opportunity and benefit distribution to all segments of Thai society, as well as to lay a foundation for the use of IT not just as a tool to enhance productivity of individuals, businesses, and government alike, but also to achieve broader social goals.

In essence, THAILAND IT 2000 is built around a simple belief in the inter-working of three pillars that must be firmly in place and function well together ([Figure 3](#)). They are:

1. A widely accessible National Information Infrastructure (NII)
2. A well-educated populace and adequate IT manpower
3. Good governance and a firm belief in the use of IT.

AGENDA#1: INVEST IN AN EQUITABLE NII

At the most basic level, we need a physical infrastructure—the so-called superhighways and access roads to transport information in the coming era of information society.

But, in essence, NII entails more than a nationwide communications network and services to carry, exchange, store or process message, voice, data and images. It also include a range of user equipment and applications that are necessary to fully exploit the full potential of information.

The most basic building block is a telephone service and high-speed telecommunications backbone that links the entire nation, one that is both universally available and affordable—such is the basic *principle of universal service for basic telephone service*, a necessary first step to bridge the gap between the information rich and the information poor.

Failing to achieve this first step, it is unlikely that major policies can be successfully implemented to achieve a more balanced social development and a more equitable distribution of economic activities and income to the rural regions, and across all sectors of society. This first step is also a must in order to make available equal opportunities to receive new methods in the delivery of education and training, healthcare and other public services.

But merely having a widely accessible and affordable NII is not sufficient in itself. It is also important that *the NII be given valuable contents* that are perceived as useful and attractive to wide segments of society. Only in this way can we hope to attract a critical mass of active users, thus deriving the maximum benefits from NII. In turn, a high level of use will lead to an increasing pace of investment in NII and the introduction of new services.

AGENDA#2: INVEST IN PEOPLE

Achievement of the first requirement invariably leads to a second prerequisite, the need for an *adequate well-trained IT manpower* stock to design, install, operate and maintain the NII, in addition to taking part in the development of useful and friendly applications to ride on the NII.

There must also be a *literate and well-educated population* to generate or to consume and make use of the information and knowledge made available through the NII.

The current weakness—and the tall order to meet the vital human resources factor—could, in part, be cost-efficiently and cost-effectively addressed by the use of IT and NII, through, for example, distance education using interactive multimedia, CAI/CAL, and the Internet.

A massive program to equip all schools, in stages, with PCs, multimedia technology, modems, and distance education facilities is imperative. Such a drive must be accompanied by the development of suitable courseware specially designed for delivery electronically.

AGENDA#3: INVEST FOR GOOD GOVERNANCE

Equally importantly, the nation as a whole must dare to dream, to paint visions of new applications, to find

and seize new opportunities in ways that suit us best: That we cannot import or copy wholesale from elsewhere.

Thailand is fortunate to have a private sector comprised of pioneering and far-sighted entrepreneurs. What we need most is an equally *forward-looking government and a proactive stance on IT development* to put Thailand into a modern regional hub in Southeast Asia for financial services, manufacturing and commerce, transport and tourism, and human resources development.

For that, the State must play the vital role to encourage, promote, support and coordinate development efforts in various areas, be they institutional, infrastructure, industry and trades, or human resources. The State must endeavor to remove critical obstacles, find strategies and solutions to lessen, or better still safeguard against, possible ill effects. It must believe in and make full use of IT, and, thereby, provide a role model for society.

Essentially, all government departments and agencies must be equipped with IT and their personnel adequately trained to use IT. If properly capitalized on, the use of IT by the government can lead to much improved public service provisions, working conditions, as well as reduced public expenditures; or to put it simply, it will make government more effective, businesses more competitive, and individuals better served.

But to merely invest in IT facilities and personnel in government is only a pre-condition. What we must not forget is that more rational work processes and new ways of working and decision making (government re-engineering) must be introduced.

Finally, public databases, geographical information systems and information networks must be created and be accessed by public administrators, businesses and citizens alike. Wherever possible, the public service sector will ultimately provide individuals and businesses the choice to contact or deal with public agencies electronically, riding the NII.

In conclusion, it is our belief that, through the inter-working of these pillars that will bring about the most benefits, social as well as economic, to the widest breadth in society, the effective and efficient use of will enhance our ability to compete internationally and will lead to a more sustainable life-quality for all to share in the coming 21st century.

REFERENCES

Gassmann, H. 1992. "Information Technology Policies: New Challenges for Global Competition and Cooperation." Conference on Improving Quality of Life with Information Technology and Telecommunications by TIDE-2000 Club, October 27-30, Bangkok.

Hana, N.K. 1991. *The Information Technology Revolution and Economic Development*, World Bank discussion papers, no. 120. Washington, D.C.: World Bank.

National IT Committee. 1995. *Social Equity and Prosperity: Thailand IT Policy into the 21st Century*. Bangkok.

© Copyright 1996 *Thailand Development Research Institute*