

Information Technology

Developments

and Their Implications

for

ASAIHL INSTITUTIONS

SEMINAR PAPERS

HONG KONG POLYTECHNIC

10 th - 12 th September 1982

in Thailand

Dr. Piboon Puriveth

Ramkhamhaeng University, Bangkok, Thailand

Introduction

The two words, information technology, used together have acquired special meaning in the last few years. Formerly technology signified materials, tools, systems and techniques. Information was facts, knowledge, data and news. Information technology is technology applied to the acquisition, storage, selection, transformation and distribution of information of many kinds. The definition adopted by Unesco is the scientific technological and engineering disciplines and management techniques used in information handling and processing; their applications; computers and their interaction with men and machines; and associated social, economic and cultural matters. The role of information technology in university administration has also been increased in the last few years. Before that the technology used in the university seemed to be attached to instructional media. Information technology is not to be confused with electronic gadgetry which most of them plug into walls. Usually the hardware was developed outside of education, but the problems were the software. High cost and shortage of relevant software have prevented widespread acceptance in developing countries.

Universities in Thailand have been using computer in teaching and learning activities for over 20 years. However, the use of computer assisted learning were mostly in departments where computer training was required. Computer also found its place in educational research.

If we classify the university into components, there are four major components, students, staff, planning, and fiscal component. University administrators make use of information technology mainly in the student component. Keeping track of students from the time of application through graduation is quite a burden. The workload becomes tremendous as the university grows. So the administrators began to look at the electronic substitute. Both conventional and open universities saw the inevitable role of computer in student administration. University with open admission policy such as Ramkhamhaeng University had used computer in registration and grading since the university open in 1971. Thammasart University has employed computer to handle registration and grade report in 1970. Computerised class scheduling began in 1969, and student transcripts were computerised seven years later. Student records were in computer tape in 1980 and last year computer were used to standardize the test papers. Kasetsart University used computer to handle student records in 1972. but the complete system began in 1979. In 1983 Kasetsart was able to apply computer to staff component, the fiscal program ran through computer in 1985.

Another problem that tend to be the main concern of university administrators is budget allocation. The lack of data and accurate information on personnel and students has led to the improper allocation of budget, and the effect of such mismanagement tend to be a long time effect. Chulalongkorn University had faced the problem in the past As result the administrators began to visualize the need for information management systems, The efficiency of budget

administration rely on the data base of student, facilities, courses, and personnel. So computer technology come in, The Computer Service Center of Chulalongkorn University was established in 1978 in order to work out the problem of budget allocation. All the work concerning computer were transferred to the Center. In addition the Center also offer service to people outside the university The system set by the Computer Service Center of Chulalongkorn become a model for computer centers of other higher institution.

Open university such as Ramkhamhaeng University and SukhothaiThamathirat Open University seem to be the main user of computer, because they have to handle large number of students. The task of attracting students to open university is one of the job that should be combined to the computer. Computer with elaborate program can be adapted as an admission tool The admission success depends on several factors. Among the factors that have contributed to admissions success are communication system. Information concerning are made known to public through press, radio, and television

Today information technology take part in teaching learning development and administration of all higher institutions in Thailand. its role predominated in teaching and learning in the early days, now the role in administration is of equal importance. Both open and conventional universities consider information technology necessary in teaching -Learning, administration ,and community - service.

Problems

Though information technology in education were widely accepted There are many problems that have been existed since the introduction of information technology into higher institutions. Some has led to the cause of rejecting new technology. Three major educational problems are often raised, when information technology became an issue.

The first problem is the quality of software. No matter how versatile the hardware technology may become, education depend on the quality of software, which will not be available in sufficient quantity and variety.

The second educational problem is that some teachers will be unable and unwilling to make necessary role - change when information technology has to be used in large scale.

The last question concerning educational problem is "Will information technology increase educational elitism ?" Some students will gain computer literacy and take advantage of what becomes available to their through the technology. Op the other hand, some students, may be the majority, do not have the same learning pace as those of the first group. This will result in widening the gap between the more and the less able in school

The problem of commercial bias is a point that university administrators should keep in mind Most of the higher institutions in developing countries have been looking for assistance from the developed countries. New information technology, for the time being, is the phenomenon of capitalist economies than to centrally planned economies. Most of the hardware and software are the products of Japan, United States. and Western Europe. Any assistance from the computerised nations will consequently lead to the problem of commercial bias.

The question of cost is an important one for university administrators. Information may become widely available at relatively low cost, but they will not necessarily be educational resources. Usually the latter, may become available at relatively high cost. The economic picture of information technology is not a bright one. If the university administrators welcome new information technology, the money will still have to be found and there are few signs that any institution is ready to pay the cost of installing the technology especially on a massive scale. the cost of information technology in educational administration would be ore acceptable if benefits could be clearly demonstrated; but the search for such clear benefits has

yielded results that partly inspire confidence among university administrators. In addition? the education budgets and regulations are constructed in such a way that cuts cannot be easily commdated, nor funds switched to other purposes. High proportion of the budget goes to paying the salaries of university personnel. The rest goes towards constructing and maintaining university building. Only a very small percentage Is available for high cost information technology.

Another problem of information technology that results, as a consequence after Installing the technology is technical problem. New Information technology Is not free from technical problems, and technical problems in any new information technology for education, is usually possible, at a cost. The technology that are offered to us are not Indefintely reliable, adaptable and flexible. Technical support is necessary

The purpose of education is. to change people to a better quality of life. Educators want people especially young people to turn out differently from what they would be if left to themselves. Ifwe look at education as a system of changing people to the ultimate goal of education, then university administrators employ educational technology in order to help students achieving the goal of education. Then educational technology is kind of rational problem solving approach to education. It is a way of thinking systematically about teaching and learning, We can not change our style of living, nor we can resist the advance of technology. Anyway, the technology that we chose have to be considered very carefully not only in the aspect of education, but also in aspect of economies and politics, including the problems that might arise from the technology.

Reference

1. Hocking, Joan. "The Computer in Higher Education" Educational Technology. (August 1985), pp.19—23
2. Hawkrige, D. "New Information Technology in Education. Croom Helm, London & Canberra. 1983.
3. Murdick, R.G., and J.E. Ross. "Introduction to Management Information Systems." Prentice Hall, Englewood Cliff, New Jersey. 1977.
4. Rowntree, O. "What is Educational Technology. ". The Open University Institute of Educational Technology, Milton Keynes. 1973.
5. Wittich, W.A., and C.F. Schuller. "Instructional Technology Its Nature and Use." Harper & Row, New York. 1973.