

PERCEIVED NEED FOR INFORMATION TECHNOLOGY IN TURKEY

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Information Technology (IT) has had a big impact on Society. New technologies have affected the social and educational systems as well as economic systems. Technological changes are something to which society must then adapt. Technology has taken an important role in assisting the educational process. Not only do Educators need to be aware of these changes within their subject, but also they must adapt changes in the society in which they live.

As developing country, Turkey had to open her doors to the new technology. The new technology has contributed to improve the educational system, the efficiency learning and teaching process. An educational system in the modern society has been transformed economically by the growing operational significance of information and the increasing sophistication of the technology available for processing that information, and therefore the schools should not lag behind. We should integrate computers and Information Technology to part of culture and society to achieve efficient schools. Hence, all students should have experience and become confident in using computer in their schooling. This aspect has led to the development of courses such as "computer awareness" and "computer literacy". They aim at giving students an understanding of the application, then we can use computers and IT as teaching and learning resources. This aspect has led to the integration of IT into the curriculum.

Perceived need for IT is mentioned and some recommendations for Turkey have also been suggested in this paper.

A Need For IT

Computers are important for the future economic growth of Turkey. The Turkish Government has placed great emphasis on the importance of IT to Turkish economy. IT and computer use in particular, can deliver new jobs and industrial opportunities.

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Most industrialized nations have a commitment to IT, but Turkey has had to temper this commitment for financial reasons. There are major training implications as each nation works to develop an IT literate and capable population.

Information Technology is essential for Turkey because the Turkish Government wishes to modernize the economic infrastructure. It is also essential for our economic survival to be in electronic communication with developed countries in all areas of trade. One of aims of the Ministry of Education is to support this modernization and reconstruction. In general, the policy on computers in schools, is based on maximizing benefits giving as much training as possible to the greatest number of students in society.

When the governments of developing countries like Turkey consider computer policy, this must be backed by an understanding of the potential of computers in integrating systems, improving problem-solving, analysis and improving management.

Once the need for computerisation is accepted, the administrative structure for acquisition must be established, hardware and software must be obtained and people must be trained. A formal structure for promoting and coordinating implementation must also be established. Both functions could be carried out by official bodies (policy making and regularity bodies), and the implementation could compose of network underneath a national computer centre (Hawkrige; Jaworski; and McMahan, 1990).

Even if the government is strongly committed to adapting computers (IT) in the national interest, many technical difficulties will remain.

Any changes in society affect the education system. In previous decades changes are so rapid that education must necessarily reflect developments in society. IT, as one of the developments, affects the education system and education must in turn prepare students to cope with the changes brought about IT.

Education should also help the young generation to anticipate changes and adapt to that change in their work place and their everyday lives. Moreover, education can help the influence and determine future changes as well as preparing people to cope with IT. New technology should be the responsibility of those who benefit from that technology in order to ensure that it is used effectively. People should be determinants rather than being controlled by the technology determinants rather than being controlled by the technology.

These are various ways to teach people about new Information Technology in its different forms. This usually involves two types of courses: firstly technical approaches to computer studies, and computer science; secondly, more general comput-

er awareness, computer literacy or IT awareness courses for all students at some stage of their school life.

The overall aim is to make student aware of computers and IT, their uses, capabilities and possible effects on society. It is clear that views on the potential IT in education vary. The role of new technology as teaching and learning medium is undisputed but there is a problem in teaching and learning about new technology and also maintaining an awareness of wider uses of IT. Computer awareness can sometimes be parallel and sometimes limited to computer literacy.

It is important to make clear definition of "computer awareness" and "computer literacy". Computer awareness usually means becoming aware of the extent to which computers are part of our lives and the society in which we live. It might include a study of the history of computers, how a computer work, what computers do, where they are used, the impact they are likely to have a society (Terry, 1984, p. 4).

Leuhrmann (1981) suggests that we consider the term "computer literacy" to be derived from a wide use of the term "literacy". He emphasizes that literacy in a languages refers to ability to read and to write, that is to do something with the language. Literacy in mathematics means the ability to do mathematics. The implications for schools is that literacy skills such as these are needed for a person to function reasonably, successfully in modern society. As have already mentioned technology has played an important role in assisting educational process.

The advent of microcomputers has had great impact in education. With the reduction in cost and increase in capabilities of computers, the use of computers in education has grown rapidly. However, the actual placement of computers in schools raises issues such as:

- * Who is going to take the responsibilities for CAL (IT)?
- * Where does the Ministry of education stand on the issue of computers in schools?
- * To what extent should non-educational factors be taken into account?
- * Are teachers and principals ready?
- * Do they perceive the benefits for themselves or their students?
- * Have they received adequate training?
- * Are students ready?
- * What do they think about computer studies?
- * Do they understand why computers are being introduced?

It is not easy to find answers of these questions in the short term, these questions and others are trying to be answered.

One thing we can say about the role of the computer in education over the next few years is that it is surrounded by question marks and uncertainty. It may be that computers will change the practice of education completely with respect to such fundamental aspect what we teach, how we teach it, and why?

To have an effective policy we should consider hardware and software requirements, teacher training requirements, teacher training needs, curriculum changes, evaluative research, support services. Policy in this field is usually developed by the Ministry of Education.

If the Ministry believes that the use of computers is important, it can ensure their use by change in the curriculum.

Inevitably, computers in education have brought some changes in curriculum practice that teachers are beginning to employ in order to operate more effectively. It is clear that microcomputers are causing the teachers who use them to engage in new classroom activities, learning strategies, and skill acquisition. The Ministry of Education should pay more attention to the content of the school curriculum.

Structuring the curriculum will focus on teachers' attention. Training teachers to use computers in their teaching is a difficult problem. If the Ministry believes they must provide shells to the teachers, it can be an initial step for training. What kind of in-service (INSET) programme can be useful for their policy? For the medium term, the plan should also look at initial teacher training. Besides, the Ministry of Education should give big preference to software and hardware that meets certain specifications.

There is no doubt that, research centres on computer based education will play an important role in CAL. Research centres can help evaluate (formative evaluation) CAL, and to help current training.

The rapid development of IT is leading to the establishment of what has been called "the information society". It is obvious that, nowadays, knowledge has become the key to economic development in the developed countries. As a part of IT, integration of computers into classroom teaching in all subjects might be an important aspect of reform in Turkish school in future. Barriers in the way of computers in Turkey will not be overcome quickly and easily, despite national investment in computers for education. When the economy gains strength, it might be possible to put more money into schools. But, finance is not the real problem. Major improvement cannot be achieved until there is a pool of well trained and capable teachers, suitable

and adequate hardware and software is available and work in lower forms is fully consolidated. All these could be successful with carefully planning. Educational Development Priorities Five Year Plan could be prepared.

With a two-year master-plan, a pilot study in a small number of schools could be started to build experience in the training of teachers and the development of curriculum at this level, as a result of these studies a relatively long-term view can be taken.

Since the Ministry of Education considered the non-educational aspects of introducing computers into schools, the Ministry should also consider the arguments in broad administrative terms. They must develop, implement and monitor a plan of action for approval within the policy framework.

Project should be carefully monitored from the beginning. Monitoring methods are growing more sophisticated and promise to provide the kind of information the National Educational Computer Board (NCEB) will need when it recommends future action to the Ministry of Education. Plans for the next two - three years are to consolidate the IT foundation course, widen the scope of the project until all schools are involved, look at extensions to the curriculum of the IT foundation course, and build up experience in developing and using CAL across the curriculum. Moreover, to create an IT literate and capable population, new courses should be arranged and the objectives of computer studies in education should be revised.

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