

Information Technology in Educational System in India: A Critical Review

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Today in globalize world, the educational system of India has not been out of touch from information technology. Before globalization, educational system of our country has based on traditional system. The information age is changing the way to work. Some jobs are disappearing, others are emerging and still others are being radically transformed by information technology. But the information age is not just affecting the workplace; its influences are felt in our educational system, too. Before it is over, the information revolution will have a profound and permanent effect on the way, we learn.

Our educational system was developed more than a century ago to teach students the basic facts and survival skills they would need for industrial and agricultural jobs they would probably hold for their entire life. This model has been described as a previous model for reasons (a) It assumes that all students learn the same way and that all students learn the same things, (b) The teacher's job is to 'Pour' facts into students, occasionally checking, (c) The level of knowledge in each student and (d) Students are expected to work individually, absorb facts and to spend most of their time sitting quietly listening to the teacher.

With all of its faults, this educational system helps the students succeed in their professions till the last decade. Now the world has changed and is changing by the day. Schools and colleges have changed too, but not fast enough to keep with the information revolution.

The traditional age may have passed, but the need for reading and writing hasn't. In fact, it is more important than ever, that today's students graduate with the ability to read and write. Many jobs that did not require reading and writing skills a generation ago now use high-tech equipment that demands computer literacy. Recently, worker who can't read printouts is not likely to survive the transition to an automated system today. In the age of cheap calculators, many students think that learning mathematics is a waste of time. In fact, the argue that spend too much time teaching students how to do things like division and calculating square roots - a skill that students seldom do by hand. These arithmetic skills have little to do

with being able to think mathematically. To survive in the high-tech, Indian students need to be able to see the mathematical systems in the world around them and apply mathematical concepts to solve problems. No calculator can do that. In the information age, communication is a survival skill. Modern jobs involve interactions between people and machines and between people and people, the fact is that information-based society depends on our human ability to communicate, negotiate, cooperate, and collaborate, both locally and globally.

The information technology clearly makes new demands on the educational system in India requiring radical changes in what and how people learn. Today information technology are essential parts of these changes. Many of the elementary and secondary schools are now introducing information technology, Students and teachers are using the concepts of information technology in a variety of ways to learn.

The most important application of information technology in the schools & colleges distance learning - using technology to extend the educational process through satellite video transmissions, the internet and other communication technologies offer many promising possibilities. Students can communicate in other parts of the world through the Internet. Two-way video links allow "visiting" experts to talk to students in the virtual classrooms and answer their questions in real time. Networked school can offer multi-school videoconference courses in India. Information technology is particularly important for students in remote locations. Where a student feels difficulties to understand the solution of the problem, the internet offers solution of their problem by on-line reference materials on webpage.

Distance Learning System promises the workers whose jobs are changed or eliminated by a shifting economy by providing the facility to learn new skills for many displaced workers who can't afford to relocate their families to college. On the other hand if a worker has to do the job with schooling, the similar problem arises. Colleges and Universities offer electronic outreach programs, these people can update their skills through Distance Learning System. Since 1990 online degree programs are introduced in colleges and universities.

plant. The potential use of somatic hybridization to bring about novel combinations of genetic material has been demonstrated in the genera *Petunia* and *Nicotiana*. Research funded in part by the Horticultural Research Institute at the University of Wisconsin is investigating the feasibility of using such techniques with woody species. Brent McGown and co-workers have succeeded in obtaining naked cells from tissue cultures of *Betula* and *Rhododendron*, but as of yet, they have neither obtained plants from single cells nor achieved cellular fusion. Not only is the desired information transmitted to succeeding generations of bacteria, but the bacterial cultures become synthesizers of insulin as well. Plant cells can be made to take up foreign genetic codes, but evidence that this can be transmitted into the daughter cells and serve the intended function is lacking.

Secondary metabolites production

The production of secondary metabolites has long been a subject of interest for biotechnologists. The tissue cultured plants have advantages in metabolite production over intact plants. About 25% prescription medicines and various raw materials used in the industries are obtained from plants. Further, the number of patents on pigments, cosmetics, perfumes and food additives has increased in recent years. Manufacturing these products from natural source are not enough to meet the consumer's demand and efforts have to be made to develop technology for their production at the industrial level. Considering the high economical and pharmacological importance of secondary metabolites, industries are deeply interested

in utilizing plant tissue culture technology for large-scale production of these substances.

In conclusion, the last four decades have seen rapid and exciting advances equal to any seen in biology and the applications of the technology have had global implications. There is no doubt, however, that the combination of genetic modification, and cell and tissue culture applied with due caution presents immense opportunity for progress. Like any other area of science, it started as an academic exercise to answer some questions related to plant growth and development, but proved to be of immense practical value, as an aid to plant propagation, raising and maintenance of high health-status plants, germplasm storage, and a valuable adjunct to the conventional methods of plant improvement

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Further reading

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