

Vision for an Innovative Information Society - “eLearning” - The Best Mode

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Introduction

Innovation has become a crucial survival issue. A society that pursues well being and prosperity for its members can no longer treat it as an option. To efficiently and effectively implement innovative ideas, science and technology is a must. I presume, E-learning can be the best mode to carry information. Innovation tends not to arise by itself; rather is generated and sustained through the efforts of people: ‘Innovation is where the spirit is’. It cannot be legislated, or brought about by edict.

Now, we need to work hard at creating an environment that is supportive for innovation. Otherwise innovators will either not innovate - they will “play safe” - or they will leave for more encouraging societies. Advanced simple information, e-learning and communication technology is one of the best media to encourage people.

An important element of innovation is resolving dilemmas, that is, reconciling apparently competing values. Truly Innovative Information Societies can, at the same time, meet real needs and control costs, address individual choices and satisfy societal priorities, considering both economics and compassion. At first, it must build and sustain social, legal and economic structures and processes that support innovation, that are competitive while sustaining the natural environment, and that lead to wellbeing for the greatest number of people. Secondly, it must ensure that its members develop and continually update the knowledge, competencies, abilities and skills

that are required to produce innovative products and services. To achieve the above facts, the easy and cost effective way of information supply is e-Learning.

The development and application of science and technology within an Innovative Information Societies (IIS) in our nation will be central to the success of the Growth and Development Strategy of the nation as it seeks to address the needs of society. In keeping with a variety of political, constitutional, social and economic changes introduced by the government, the Innovative Information Societies as an enabling framework for science and technology is intended to support the Growth and Development Strategy of the nation.

The Global Context

The setting and realization of national goals cannot be undertaken without due regard to the implications of global imperatives. Social and economic systems “globalize” by world market forces the information revolution and new communications technologies require constant innovative planning and monitoring in order to function optimally in the interests of their constituencies.

The knowledge-based transformation of many of the world's societies as a result of the increased flow of information made possible by ever-improving global electronic communications and e-Learning methodologies.

The world is in the throes of a revolution which will change forever the way we live,

work, play, organize our societies and ultimately define ourselves. Unlike previous revolutions which were focused on energy and matter, this fundamental change involves our experience of time, space, distance and knowledge. Although the nature of this information revolution is still being determined, its implications, which are global and inescapable, are being felt with increasing force. In the world-wide race for competitiveness the finishing line keeps moving away. The ability to maximize the use of information is now considered to be the single most important factor in deciding the competitiveness of countries as well as the ability to empower the citizens through enhanced access to information through e-Learning.

Science and technology (S&T) are considered to be central to creating wealth and improving the quality of life in contemporary society.

Identifying niche markets in which international competitiveness can be improved; increasing technology investment and enhancing productivity become imperative. The conceptualization of an Innovative Information Societies (IIS) which seeks to harness the diverse aspects of science and technology(S&T) through the various institutions where they are developed, practiced or utilized. No government/organization can order innovation to take place, but government/organization can ensure that a competent pool of expertise from which innovation can spring is grown and maintained using science and technology as a fundamental goal.

Promotion of Technological Change

There is a need to define a sustainable path for social and economic development and the relationship between this path and technology investment. In order to do so, we must be aware of relevant global trends. In recent years, industrialized countries have

devoted considerable attention to improve their understanding of the economic implications of rapid technological change.

The acceptance of the contribution of technological change to economic growth underlies the attempts of many industrialized countries to develop policy frameworks for the promotion of innovation as a primary route to drive continuous processes of technical change throughout their economies. This drive to master the effects of technological change has also been the key element of the policies pursued by the newly-industrializing countries.

This vision embodies a coordinated effort to achieve excellence in serving the national goals. It is a broad vision in that it focuses simultaneously on maintaining cutting edge global competitiveness and on addressing the urgent needs of those of our citizens who are less able to assert themselves in the market.

Promoting an Innovative Information Society

In the face of the growing globalization of the world economy, technological innovation and support need to be encouraged as central to the above goal.

In areas of public good in which, to achieve the greatest benefit, the research results and technology transfer need to be placed in the public domain. A prime objective of the Innovative Information Society (IIS) is to enhance the rate and quality of technology transfer and diffusion from the science, engineering and technology (SET) sector by the provision of quality human resources, effective hard technology transfer mechanisms and the creation of more effective and efficient users of technology in the business and governmental sectors.

Urban and rural communities need to be assisted and encouraged to adopt social and technological innovations to assist them in decision making and to enhance their ability

to make informed choices. The private educational institutes/ universities in our nation can play a major role to improve this through providing basic foundation to our new generation by enabling e-Learning techniques.

The lifelong processes of scientific and technical education, training and e-Learning among the workforce need to be promoted as an essential response to the forces created by the dynamic changes of the global economy. This is a necessary response to enable those made redundant in one circumstance by these changes to continue making an active and creative contribution to the economy, their own well-being and that of society. New approaches to education and training need to be developed that will equip researchers to work more effectively in an innovative way using science and technology.

The development of an Innovative Information Society (IIS) is urgently required, one serving our own needs rather than echoing those of other nations. A vision of the innovative information society should seek to ensure that the advantages offered by the information revolution reach down to every level of society and achieve as best a balance between individuals and social groups, communities and societies as is practically possible. In developed countries, even where social issues are taken into account, the bias tends toward individual advancement via personal universal access and, at a public level, toward competition between firms and nations. This vision would seek to ensure the creation of an equitable information order nationally, regionally and internationally. It would therefore take into account the undoubted potential of communities at various levels to co-operate, to bridge differences, to work for mutual upliftment and the meeting of basic needs, and to redress the social imbalances of underdevelopment. The development of such a perspective would aim to ensure that

the information revolution benefits society as a whole.

The potential of Information Technology (IT) needs to be captured to serve people issues such as supporting education, providing household services and enabling social development. As a developing country, our nation needs to ask certain questions with respect to the information revolution:

- What should we do to prevent being marginalized by the accelerating rate of innovation in information technology in the world?
- How can we participate globally without merely throwing open our markets to foreign products, thus increasing our dependency on the developed world?
- How can we educate and give awareness to our citizens in an effective, easy way to achieve the results?
- How can we empower ourselves with a capacity for IT innovation?

The Importance of Knowledge Generation

Even at our current stage of development, there is a need to recognize the importance of the knowledge-generating function of research, particularly in the higher education sector. We need to facilitate appropriate technological change and awareness within society and within the economy according to the global pace.

The importance of human science is in need to be recognized, its important role in the context of innovation need to be highlighted.

Finally, there is a need to meet the internal challenges of governing a healthy science and technology system. This includes managing the problems of big science, fundamental research and service-oriented science and their relationship with

technology development, infrastructure, and basic needs provision and human resource development. It also includes the comprehensive measurement of the inputs and outputs of science and technology research and development, and its impact on the goals of national policy objectives, both in science and technology and other fields.

What is Innovative Information Society?

Innovation is the application in practice of creative new ideas, which in many cases involves the introduction of inventions into the marketplace. In contrast, creativity is the generating and articulating of new ideas. It follows that people can be creative without being innovative. They may have ideas or produce inventions, but may not try to win broad acceptance for them, put them to use, or exploit them by turning their ideas into products and services that other people will buy or use. Similarly, people can be innovative without being creative. For example, if they apply or implement ideas or inventions that were made elsewhere, they are being innovative, even though the inventions or creative ideas were not their own. Some innovations are truly revolutionary, while most represent modest improvements in the way we do things. Competitive companies, for example, are continually introducing incremental innovations to improve the products they sell or the processes they use in production. Only rarely will they introduce something radically new into the market place.

An environment would consist of all individuals and organizations involved in creating and using a knowledge base in order to build a better and would thus constitute an innovative information society. Such a system, in its broadest conception, is the means through which a country seeks to create, acquire, diffuse and put into practice new knowledge that will help that country and its people achieve their individual and collective goals.

Technology Diffusion

From a technological perspective, economic growth has proved to be intimately linked to the process of technical change in individual firms and in the economy as a whole. In turn, technological change in an economy is strongly linked to innovation and to technology diffusion. The main thrust must be strongly allied to facilitate the diffusion of useful new technologies, whether domestic or foreign, throughout the economy. Government has a particularly important role to play in stimulating such diffusion among the small, medium and micro-scale enterprises, a sector representing great expectations for employment creation.

Best-practice technology

Where best practice is determined by the existing capacity of the individual to manage the technical change involved in moving from existing to new practices. Successful upgrading of the technical performance is much more likely to come through a consistent succession of incremental changes rather than through single, dramatic leaps in technical capacity.

The time has now arrived to put significantly increased emphasis on addressing the technological needs. Science and technology performs a dual function in the process of human resource development. On the one hand, it provides the knowledge and skills content of human resource development programs – Science and Technology covers a spectrum of subject disciplines from basic numeracy to quantum mechanics. On the other hand, the effective e-Learning methods also act as the medium whereby knowledge and skills are transferred.

Technology Education

Based on the general acceptance that technological capability is central to contemporary society, many advanced and developing countries have introduced

technology education into the school curriculum. There is considerable debate as to whether technology is a discipline in its own right, whether it should be taught as part of science, or spread across the curriculum. In many countries the implementation of technology as a subject has been undermined by a shortage of resources and teachers, inadequate support, and confusion about its philosophical underpinnings.

Public Awareness of Science and Technology (S&T)

Access to information is empowering, enabling people to monitor policy lobby, learn, collaborate, campaign and react to proposed legislation. It is also one of the most powerful mechanisms through which social and economic progress can be achieved. The democratization of society and elimination of poverty can only occur if people have equal access to the services and resources they need to perform their productive tasks. Democracy implies being aware of choices and making decisions. The extent to which this is possible depends largely on how much information is available to the people and how accessible it is.

Recent history has demonstrated the potential of technology to improve the quality of people's lives. Yet disadvantaged populations in general and women in particular, especially those in rural areas, have little access to information about these technologies.

A campaign to promote awareness and understanding of e-Learning, science and technology and of its importance will have two key elements, namely promoting e-Learning on the one hand, and promoting the power of science and technology on the other. These programmes would include

- increasing familiarity with the natural world

- promoting understanding of some of the key concepts and principles of e-Learning and technology
- demonstrating that e-Learning, engineering and technology are social tools and
- fostering the ability to use e-Learning and technology knowledge in ways that enhance personal, social, economic and community development. The deficiencies of the current system are multifaceted. The solution of this problem requires an innovative approach in itself. It is vital for government / universities / private institutions etc to ensure acquisition and effective use of up-to-date science and technology information and to ensure access to international electronic information resources.

Conclusion

“Science creates conditions for economic and national development, and raises the prestige of a country in the modern world. The most important goal of Science, Engineering and Technology(SET) is to achieve results which in the near future will support the process of social and economic transformation, and in the long run will ensure economic growth and social development of the country, by making the most of resources set aside for scientific research and development. To reach this goal, it will be essential to link e-Learning effectively with other areas of social and economic activity, and with education in particular.”

“An Innovative Information Society (IIS) focuses attention on the outputs of that system; that is new knowledge and new technologies. A strategy for science and technology is aimed at ensuring that there is a sufficient supply of these outputs. A strategy based on a Innovative Information Society (IIS) includes, but goes beyond that, seeking in addition to promote changing the

ways in which society and the economy do things. It is specifically concerned with supporting and promoting the attainment of national objectives by the creative use of the outputs of the science and technology system” through e-Learning.

.Thus, a Innovative Information Society (IIS) can be judged as healthy if the knowledge, technologies, products and processes produced by the national system of science, engineering and technology have been converted into increased wealth, by industry and business, and into an improved quality of life for all members of society.
