



## Education in Creating India a Knowledge Based Society

J D Singh,  
G V (PG) College of Education (CTE)  
Sangaria- 335063, Rajasthan.

Received: 9 July 2012

Received in Updated form:  
15 July 2012

Accepted: 18 January 2012

### *Abstract*

*Knowledge enables an individual to think, to analyze and to understand the existing situation, and the inter-linkages and externalities of each action. It empowers an individual to form his or her own opinion, to act and transform conditions to lead to a better quality of life. Knowledge societies are generally characterized with the ability to create, share upon the general well-being of the people as well as making it possible for them to prosper. The knowledge-based society can offer tremendous potential for reducing social exclusion, both by creating the economic conditions for greater prosperity through higher levels of growth and employment. The Indian education system improvement is required at many levels– from primary schools to higher education and research institutions of national excellence. At all levels, there is a need to improve both access and excellence. Research in the field of the human social sciences plays a fundamental role in understanding and managing the many ways in which society is currently changing. The increasing extent of services in the pace of technological changes, the advanced level of information and knowledge, as well as the size of the industrial and social re-organizations, all give good arguments in favor of the knowledge based society. ICT is used to ensure rapid, cost effective and reliable communication, networking and access to and publication of information which, in turn, is used to enhance productivity, education and development. In a society of the future, education will play an essential role in creating the new way of life specific to knowledge and learning based society. In order to create a world class knowledge society, every one of us has to be knowledge worker. This paper describes the importance of creating a knowledge based society for making India a powerful country.*

**Key words:** Education, knowledge Society, Knowledge Commission

## **Introduction**

We are living in a society dominated by change. The technical, economic and social evolution has shaped people's way of living and thinking. The ability of a nation to use and create knowledge capital determines its capacity to empower and enable its citizens by increasing human capabilities. In the words of our Prime Minister, "The time has come to create a second wave of institution building and of excellence in the field of education, research and capability building so that we are better prepared for the 21st century." A successful advanced society is founded on a strong scientific base that has the ability to convert scientific research and knowledge into products and services. With this broad task in mind, the National Knowledge Commission (NKC) was constituted on 13<sup>th</sup> June 2005 with a time-frame of three years. One of its three objectives was to make India a knowledge-based society. Easy access to knowledge, creation and preservation of knowledge systems, dissemination of knowledge and better knowledge services are core concerns of the commission. A number of studies have been done in the area of knowledge societies. UNESCO (2005) report describes a knowledge society as one which is nurtured by its diversity and its capacities. This is because, every society in one way or the other has its own knowledge assets and it is only necessary to work towards connecting these assets which are already in the society. This could be blended with the new methods of developments, spread of knowledge and acquisition. Another important feature proposed by UNDP is that knowledge societies must foster knowledge sharing. This is due to the recognition given to knowledge as public incentives and must be made available to every individual of the society. The globalized markets, the technical and technological revolutions are transforming the modern economy into a "knowledge based society" in which new ways of organizing the work are governing the world, demanding a perpetual buildup of competences, solid knowledge and increasing responsibilities.

## **The Terms of Reference of NKC**

The Terms of Reference of NKC also reflect its overarching aim to transform India into a vibrant knowledge-based society. The Terms of Reference of the NKC are-

- Build excellence in the educational system to meet the knowledge challenges of the 21st century and increase India's competitive advantage in fields of knowledge.
- Promote creation of knowledge in Science and Technology laboratories.
- Improve the management of institutions engaged in Intellectual Property Rights.
- Promote knowledge applications in Agriculture, Medical, Industry and other sectors.
- Promote the use of knowledge capabilities in making government an effective, transparent and accountable service provider to the citizen and promote widespread sharing of knowledge to maximize public benefit.

Now, in the early stages of the 21st century changes are happening again. This time it is Knowledge, that will from now on forward function as the bases of society and the economy. It means that buying of wealth and power is no longer linked to land possession, agricultural production, or industrial output. Increasingly more manual labor is now being performed by machines and robots. Power and wealth has become linked to the possession and production of Data, information, scientific discovery and Knowledge. The old saying: "Knowledge is Power", hasn't been more valid than today. When we buy one kilogram of steel, 90% of it is material, while if we buy a copy of Window 2007 from Microsoft, more than 90% of it is knowledge. Knowledge society is a society where creating, sharing and using knowledge are key factors in the prosperity and well-being of its people. Better society requires best knowledge management

practices and use of latest tools and technologies. The countries, companies or individuals who can offer the most knowledge, would be the most influential in society.

### **Recommendations of the National Knowledge Commission**

The National Knowledge Commission's (NKC) recommendations have been crafted to achieve the objective of tapping into India's enormous reservoir of knowledge, to mobilize national talent and create an empowered generation with access to tremendous possibilities. NKC believes that providing universal access to quality education is a cornerstone of development and a minimum necessary condition for any progress towards making India a knowledge society. Following are the main recommendations of the National Knowledge Commission (NKC) set up by Prime Minister Manmohan Singh in 2005 under the chairmanship of Mr. Sam Pitroda:

- Education for developing a learning society,
- Setting up a National Commission on libraries,
- Provide impetus for developing translation as an industry,
- Central legislation is required to affirm the Right to Education,
- Teaching of English as a language should be introduced, along with the first language, starting from class I in school,
- Build a national knowledge network to connect 5,000 nodes across institutions,
- Place vocational education entirely under the Ministry of Human Resource Development,
- Change system of regulation for higher education and create more universities,
- A National Science and Social Science Foundation to be established to suggest policy initiatives, and
- Re-engineer government processes before computerization and develop common standards for services and transactions with citizens.

Knowledge is only one input to the development process, but it is an absolutely essential one. Without adequate knowledge all the other essential inputs-land, infrastructure, factories, capital, technology, administrative and social organization cannot yield full results. Robust research findings suggest that knowledge as a factor of production explains a substantial proportion of economic growth internationally. Enhancing knowledge generation, dissemination and application is the fastest, most cost-effective means of increasing the productivity of all these other resources and accelerating national development.

### **Knowledge Society**

Knowledge is the most powerful engine of production. Knowledge is defined as “information and understanding about a subject which a person has or which all people have.” Knowledge can be found in books, information systems, data systems, organizations, in the new media, in social activities, in cognitive structures, in all kind of products and in social systems. Every day we combine, generate, protect, create, transfer, codify and save knowledge. Knowledge based society is a society whose processes and practices are based on the production, distribution, and use of knowledge. The formation of a knowledge-based society is a global process, and elements of a knowledge-based society develop in a country regardless of its capabilities and resources. Knowledge has become a vital commodity to countries, businesses and individuals in the 21st century - age of the knowledge based society.

In 1966, the term “knowledge society” was used for the first time by the North-American political scientist Robert E. Lane (according to the etymological reconstruction of Stehr 1994, 14 p, 26 p). In an article he argued against irrational politics and asked for more rational knowledge. He demanded rational knowledge as scientific expertise in order to improve societal decision making processes. The proposition 'knowledge society' acknowledges the might of the brain power over of any other kind, be it economic or military or political. The position that a country enjoys in the present day world is determined by its ability to make best use of its brainpower. The capability created by knowledge is the foundation upon which our future is to be built. In the knowledge based society, technology, especially the informational one, continue to have an important role even if the paradigm is changing in favour of awareness and consciousness, marking the economy and society transition to a higher level of evolution. With the innovation of mobile communication, internet penetration, availability of higher education and every knowledge seeking young community India is going towards the knowledge enabled society.

### **Characteristics of a Knowledge Society**

Tangible evidence suggests that knowledge and information are capable of helping nation to achieve developmental goals. To capitalize on the knowledge revolution to improve their competitiveness and welfare, developing countries need to build on their strengths and carefully plan appropriate investments in human capital, effective institutions, and enterprises. In a new knowledge-based society, all citizens must have access to an inexpensive, world-class communications infrastructure and a wide range of services. Every citizen must be equipped with the skills needed to live and work in this new information society. Knowledge Societies and their economies have a range of characteristics. The characteristics of a knowledge society are followings: -

- Advanced high-speed broadband – domestic and enterprise;
- High level of electronic transactions in public, private and government services;
- High participation of students in advanced mathematics and science;
- World ranking Universities with high level of international connectivity;
- Technology industry producing innovative products and services for export;
- Well defined national ICT research programmes which focus on documented strategic national needs;
- Strength in ICT, Biotechnology and Pharmaceuticals with high added-value indigenous manufacturing sectors;
- High level of international business connectivity with strong export revenues from products and internationally traded services;
- Have a higher average standard of education in comparison to other societies and a growing proportion of its labour force are employed as knowledge workers i.e. researchers, scientists, information specialists, knowledge managers and related workers;
- Its organizations – private, government and civil society – are transformed into intelligent, learning organizations;
- Increased organized knowledge in the form of digitized expertise, stored in data banks, expert systems, organizational plans, and other media; and
- A distinct epistemic culture of knowledge production and knowledge utilization.

### **Major Challenges in Creating Knowledge Society**

Knowledge and innovation have always played a crucial role in economic and social development. When a society becomes knowledge-based, it faces challenges on a variety of

levels. How and why knowledge is produced and shared, where it is produced, how knowledge spillovers affect new knowledge creation and parameters of use, changes in strategic decision making in knowledge-based environments and how public policy can and should adapt all are crucial issues. Research in the field of the human social sciences plays a fundamental role in understanding and managing the many ways in which society is currently changing. The challenges relating to the creation of knowledge on education and training are related to concerns about its relevance and quality as well as low levels of funding available for such research. So, there is still a need for the further development of educational research strategies and capacities, to address and make best use of the inherent complexity of research based knowledge, on the basis of which it would be possible to justify increased investment in relevant and high-quality research. The challenges are due to a weak institutions, limited awareness and disincentives preventing them from taking the root to the knowledge economy.

Recently there are talks of building a knowledge based society in India. When a society becomes knowledge-based, it faces challenges on a variety of levels. How and why knowledge is produced and shared, where it is produced, how knowledge spillovers affect new knowledge creation and parameters of use, changes in strategic decision making in knowledge-based environments and how public policy can and should adapt all are crucial issues. The challenges for society are formidable and will require substantial information, knowledge, wisdom, and above all collaboration between the scientific community, policy makers and the public. The enthusiasm of our policy makers is promoting efforts to create new knowledge societies. This is reflecting in an overwhelming focus on strengthening the telecom infrastructure and promoting the use of ICTs in all sectors. A few challenges in India in some areas are as follows:

- 25% of the Indian population is illiterate. Only 7% of the population that goes to school managed to graduate and only 15% of those who enroll manage to make it to high school and achieve a place in the higher education system.
- 80% of schools are managed by the government. Private schools are expensive and out of reach of the poor.
- More hands to earn remains the mentality amongst many families and therefore little kids are set out to fend for the family over going to school to garner an adequate education, in the most literal sense of the word.
- Infrastructure facilities at schools across rural areas and in slums dispense very poor quality of education.
- The teachers are not well qualified and therefore not well paid and therefore are not willing to work hard enough. This has been a classical Catch-22 problem that the government has been trying hard to fight against.

If we consider the new educational challenges, than the new system of education needs to be an open one, conceived to ensure the equal training opportunity to all the members of society, so that the able and high-performing may have access to study in order to get a chance at social ascension, regardless of their origin, income and previous background.

### **Role of Education in Creating India a Knowledge Based Society**

Education has played and is still playing an important role in forming and training the individual throughout his existence. In these days society, however, enforces some specific traits of the whole educational process that are anchored into the reality of the present. Education as an essential activity in the development of society has seen major transformations, from which the new methods and models of the modern educational system have resulted. The relationship between the individual and society becomes more complex via education, as the individual gains

the capability to make his contribution that would balance the benefits of his living among other individuals. Students, universities, colleges and Indian young community are really the knowledge seeker. They want to acquire new knowledge, work with innovations in each and every field.

On a global level, education is regarded as a phenomenon, one of those activities that can favor communication through its very specific functions, as well as establishing close communication links between various countries, geographic areas and across various cultures. The revolutions in India, green and white are examples that demonstrate the benefits of the application of technology to boost grain and milk production. We cannot overlook education's role of forming and informing the individual, being a social phenomenon that in turns constitutes an important dimension of any philosophical approach of education. Education is not only about putting the individual in contact with values, but also raising him to the level of these values, than extending this process from the individual level to the society level.

Education leads to lower incidence of health problems, reduced mortality and increased life expectancy. Health education, if included in the general education, tied to common organisms or other means of communication, can be more effective and less costly. In a world of evolution, of technological know-how, education plays an essential role. It is a top rank social institution that can contribute to increased democracy and equality, facilitating the rapport between man and nature. Given this context, education stands as the basis for a society focused at the future, and knowledge becomes the key component of economic and social growth.

The new society is a certainty and is one of organizations, where the primary resource is knowledge. A knowledge based society implies a large demand of overly-qualified workforce, forcing the population to learn how to operate with information and knowledge. Therefore, the development of the knowledge based society is dependent on the creation of knowledge, on its spreading via education and tuition and on its dissemination via communication and on its involvement in technological innovation. The link between the knowledge-based society and society itself is made by combining four interlaced elements: the build-up of knowledge, its transmission via education and training, its dissemination as information via media and its utilization in technological innovation. Reforming education policies and regulations, particularly those designed to increase supply and quality, should be an urgent priority. India must preserve traditional knowledge and subject it to scientific enquiry and application.

The 21st century knowledge based society tends to expand to a global proportion. Acknowledging the rapid moral depreciation of knowledge and abilities, the modern society prepares to adopt a new approach to education in order for it to function as a life-long institution of learning. Education as an essential activity in the development of society has seen major transformations, from which the new methods and models of the modern educational system have resulted. Education can provide people not only with the best technological know-how, but also by training potential innovators, to create an advance in knowledge and create economic growth. In this context, the investment in education becomes the most important investment of the society and of the organizations, with long lasting results, as *“the ideas, the knowledge in general, can be used and reused forever, and grow in value as they are being utilized, this contributing to the success of society”*.

The society based on information and knowledge assumes the intensive usage of information in all the domains of human activity and existence, with significant economic and social impact. The new information and communication technologies are used both on individual level and within organizations with high flexibility, resulting from the independence of human

activity related to space and time. The informational revolution is not limited only to the IT & C domain, but regards the very role of information plays in society; it has led to the expansion of the frontiers of knowledge, making a decisive mark on all the components of the global system, so that obtaining, owning and making use of knowledge would become the pinnacle of a society where education plays the main role. The Future Internet, which will see the full integration of infrastructure and user services, is now a key driver of the Smart Economy.

### **Few Suggestions for making the knowledge-based society**

At the beginning of the 21st century, society has passed over the informational stage and is characterized by knowledge, which, in its turn, offers access to a plurality of technical, technological, innovative and informational elements, of quantitative and qualitative nature, whose practical applicability sometimes radically transforms life, objectives, processes, paradigms, concepts and environment, requiring adaptation to a new economic and social reality where technological and informational progress is an integral part. According to Spence (2008), there should be an increase in GDP to the level of 7% or above annually over a given period of time in achieving high growth. The World Bank also places emphasis on the GDP of a country as one of the criteria for measuring a knowledge society in the knowledge assessment methodology. In order to achieve this high growth, growth auxiliary factors need to be promoted in the country.

Knowledge has always been an essential and distinguishing characteristic of human society, for human beings are unique among all species in their extended capacity to formulate, systematize, preserve and consciously transmit organized bodies of knowledge from one individual, community, generation and location to another. That is the essence of all that is known as education. There are few suggestions for making the knowledge-based society-

- To improve working conditions and ensure dignity of worker;
- Transferring knowledge through education and professional training;
- Empowering citizens and increasing transparency;
- Disseminating the knowledge by publishing;
- Utilizing knowledge in the society's best interest, especially through innovation;
- Building the motivation to learn and adapt to the perpetual learning process in all;
- Producing new knowledge through research activity and foster increased collaboration among the R&D institutes, Universities and private sector enterprises and leverage upon their cumulative strengths in designing and implementing various innovation programs;
- Create new interface structures to forge partnerships between academia and industry;
- Reducing the transaction cost and improving the reach and quality of public services;
- Adopt more active approach towards increasing the visibility of the library and its services to the society through various social marketing strategies;
- Providing the information and know-how, both as a substance and as a process is a priority generated by the new technologies; and
- Public libraries offer a public space where, people from all strata of society come to read, to learn, to research and to entertain themselves. To be attractive, libraries need to be modern, computerized, well maintained, and conveniently located. Facilities available on the premises should include comfortable sitting areas, web-browsing cafeterias and multimedia centers etc.

In turns, the new technologies have the role of transforming the education by rethinking the purpose and functionality of the educational system in society.

### **Conclusion**

Knowledge can be considered as the only resource, which can be reproduced infinitely. The Indian education system improvement is required at many levels – from primary schools to higher education and research institutions of national excellence. Today's policy makers must extend our country's existing strengths through careful investments in education, institutional quality, and relevant technology. They must create enterprises that are knowledgeable enough to recognize new competitive opportunities and skillful enough to convert those opportunities into wealth. Knowledge based society opens new perspectives such as: chance to decrease the gap between developed and developing countries; more chances for individual development; respect to individuals; freedom of self-organization. In a society of the future, education will play an essential role in creating the new way of life specific to knowledge and learning based society. Therefore, the development of the knowledge based society is dependent on the creation of knowledge, on its spreading via education and on its dissemination via communication and on its involvement in technological innovation. In order to create a world class knowledge society, every one of us has to be knowledge worker for making India a knowledge super power.

### **References**

- \*\*\* (2012). <http://www.slideshare.net/Downes/toward-a-new-knowledge-society>.
- Blinder, AS (2000), *The Internet and the New Economy*, [http://www.internetpolicy.org/briefing/1\\_00.html](http://www.internetpolicy.org/briefing/1_00.html)
- Dixit, Kunda. "Does Information Technology Promote Knowledge". Retrieved from <http://www.twinside.org.sg/souths/twn/title/1900-cn.htm>
- Government of Ireland (2006), *Strategy for Science Technology and Innovation 2006-2013*. The Stationary Office, Dublin. Available at: <http://www.entemp.ie/publications/science/2006/sciencestrategy.pdf>.
- International Telecommunication Union (2009), *Measuring the Information Society -The ICT development index*. Retrieved from [http://www.itu.int/ITU-D/ict/publications/idi/2009/material/IDI2009\\_w5.pdf](http://www.itu.int/ITU-D/ict/publications/idi/2009/material/IDI2009_w5.pdf)
- New Knowledge Commission (2009), "Report to the Nation, 2006-2009", Government of India.
- Pohjola M (Ed.), (2000), *Information Technology, Productivity, and Economic Growth*. Oxford University Press, Oxford.
- Spence, M (2008), *The Growth Report: Strategies for Sustained Growth and Inclusive Development*. Commission on growth and development. Retrieved September 24, 2008, from <http://cgd.s3.amazonaws.com/GrowthReportComplete.pdf>:
- Stehr, N. (1994b) : *Knowledge Societies*. London.
- UNESCO (2005), *Towards Knowledge Societies: UNESCO world report*. [www.knowldgecommission.gov.in](http://www.knowldgecommission.gov.in)