

# Role of an Higher Educational institution in a knowledge based economy

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## Article History

Received: 04-07-2020

Revised and Accepted : 05-12-2020

Published: 16-03-2021

<https://doi.org/10.56343/STET.116.014.003.006>

<http://stetjournals.com>

## Abstract

In this millennium, developed and developing countries are working hard to strive the excellence in creating and achieving wealth, seamless integration of technology and harnessing of technology know-how and enhancing human talent. In this article author discusses about the vital role that a Higher Educational Institution can play in a Knowledge Based Economy (KBE). Author also discusses about the three key components of knowledge-based economy namely knowledge, people and technology and how Technical Institution can respond to the demands of knowledge-based economy.

**Key words:** creative analysis, higher educational institution, smart approach, smart pedagogy, systematic approach

## INTRODUCTION

This new millennium has brought out rapid changes in economic frontier. Many organizations have started to acquire and merge resulting in the creation and increase of financial wealth, harnessing of technical know-how and enhancement of human talent. With the fast advancements in the field of Information and Communication Technologies (ICT), the boundaries for global trade is controlled by the click of the mouse. The industries and organizations already have started to analyze such changes and are getting themselves adapted to these trends. In developed and developing countries education should be one of the main forces to propel the country to the forefront in all walks of life. In order to achieve the above we need Total Quality People (TQP). To have world class TQP, the need of

the hour is to have a premier education and training system.

Twenty first Century has already signaled an era of significant breakthroughs in terms of technology and its applications. This has resulted in changes that get reflected in our day-to-day life. The advent of knowledge economy driven ICT call for new paradigms in technical education. There is felt need for the educators and educational institutions globally to recognize the implications of these changes.

Globalisation and rapid technological innovation also call for new competencies. Content and technical knowledge easily becomes irrelevant in a rapidly changing world. Peterson (1997) rightly noted that "there has been a revolution rather than evolutionary change in the environment of colleges and universities". The challenges described were similarly argued by Ramsden (1998) who states that "we face an almost certain future of relentless variation in a more austere environment". He further noted that the challenges included "new forms of learning, new technologies for teaching and new requirements for graduate competence".

The Internet era, however, has implications far beyond the realm of instructional technology. The roles of teachers as authorities in specific fields of knowledge have been eroded. The dissemination of knowledge is no longer of primary importance. The World Wide Web provides ready information any time and any where. The roles of teachers will change dramatically if they are to remain relevant to new generation of students. In fact the Internet revolution calls for a total revamp in curriculum content, delivery and assessment. How should education address the issues of knowledge management and prepare our students for this knowledge era?

Given the vast population size of India, with reasonable IT infrastructures in the world, if the dynamism proximity and intensity of change is not given due attention by the stake holders concerned we



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might have to face a stiff competition in the years to come. This needs to be realized by technical institutions in India. For academic staff here response to change is imperative.

### LITERATURE REVIEW

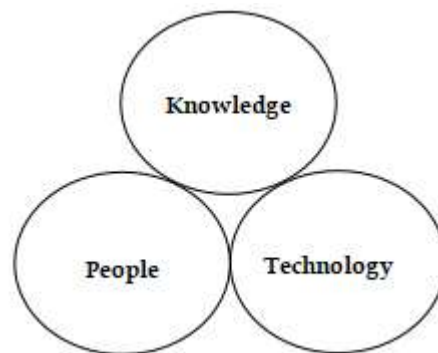
An account of Information Theory, Inference and Learning Algorithms was given by Mackay(2003). Formal Semantics for Perception was discussed by Larson(2012). Merrill(2013) attributed identifying and designing effective, efficient and engaging instructions to be the first principles of instructions. Biggs *et al.*(2014) evaluated the Quality of learning and the SOLO Taxonomy, structure of the observed learning outcome. Importance of a semantic based framework for meaning construction and construction interactions and analysis of mentoring-learning relationships in their constructivist interactions were highlighted by Badie(2015a,b and 2017) and the dynamics of meaning *viz.*, Anaphora, Presupposition, and the theory of grammar was evaluated by Chierchia(2009). Role of cybernetics and cognition was brought out by Von Foerster(2013). Coccoli *et al.*(2014) discuss the smarter universities, as a vision for the fast changing digital era.

### KNOWLEDGE-BASED ECONOMY

The dawn of a new millennium brings with it a fast changing economic landscape. Many organizations around the world are merging to form larger companies, so as to create and increase in financial wealth, hardness in technical know-how and enhancement of human talent.

With the explosion of technology and the easy access to the Internet, the boundaries for trade and business have begun to fade. This is apparent in the rise in the number of dot.com companies and E-commerce businesses around the world. Being able to source and buy material from across the world without having to physically even leave the office or home is a new phenomenon.

As such, institutions and organizations have to analyze such changes carefully, to see how they can best adapt and capitalize on such trends. The education industry is no exception. In developed and developing countries, education will be one of the main forces to propel a country to the forefront in the fields of science, medicine, engineering, technology and business. To achieve economic success and competitiveness, the workforce has to be well equipped and trained. To have a world class world force, we must have a premier education and training system. The environment must be conducive for learning and society must promote learning.



**Fig.1.** Components in Knowledge Based Economy

Given the importance of technical education in the development of the nation, the Government of India has permitted the private participation on a large scale. Also government has initiated serious steps in establishing government funded new national level technical institutions to improve the access and quality of technical education in the country. The National Knowledge Commission (NKC) in its 2006 report recommends active participation by government in creating more access especially in higher technical education.

### THREE COMPONENTS IN KBE

The three most important components in Knowledge Based Education (KBE) are

- i) Knowledge,
- ii) People, and
- iii) Technology (Fig. 1).

### KNOWLEDGE

In the early days knowledge of agriculture and farming was the main driving force in most economies. Then came the industrial revolution which forced the economy to shift towards production. In the present era of information and knowledge revolution the developed and developing countries knowledge seems to be the "key" area to keep them competitively ahead. Result of which there is a paradigm shift in economy from traditional to knowledge-based economy as "knowledge" is power in a rapidly changing world.

### PEOPLE

In KBE people are more informed as compared to their predecessors since the access to information is available readily to them just by the click of the mouse. Emergence of E-commerce, M-commerce etc., have transformed the functioning of business from bureaucratic structure to more horizontal one. People working in KBE will have to work in teams consisting of people from cross functional platforms and origin. People will have to acquire multifunctional skills in

order to serve and sustain in the developmental process. They should have a mindset to constantly upgrade the skills by learning continuously. It is appropriate at this juncture to quote Alvin Tofler the greatest futurist of 21<sup>st</sup> century. According to him “the illiterates of 21<sup>st</sup> century are not the people who do not know to read and write but are those who do not want to learn, relearn and unlearn”.

### **TECHNOLOGY**

Advancements of technology particularly ICT has helped to improve the quality of living. For example, video conferencing, e-Learning, e-banking, Geographical Information System, nanotechnology, mobile computing, IT and ITES etc., have changed the way how the traditional business is run. Thus, technology is the key for success and is here to stay and has already began to change the economic and social scene.

### **TRENDS AFFECTING EDUCATION IN A KBE**

In this competitive environment, knowledge and idea generation will help one to stay ahead. Among the various multifaceted role of education, its new role is to facilitate the quest for knowledge by making available the means to acquire knowledge. The following are some of the new thoughts on how the educational arena will or should change to accommodate the new needs:

- a. Collaborative Learning
- b. Learning on Demand
- c. Life long Learning
- d. Learn-Unlearn-Relearn Model
- e. Strategic Alliances
- f. Creative Thinking and Communication skills

### **COLLABORATIVE LEARNING**

In KBE, information is widely available and people have more avenues to access for independent learning. Therefore, due to this, role of knowledge providers has become as facilitators. In this context, collaborative learning is going to become an important aspect of learning.

### **LEARNING - ON - DEMAND**

With the capability to access internet and improvements in bandwidth and connectivity a new range of learning is on surge which is called as technology enabled virtual learning environment. Because of these advancements a new phenomenon in learning has been evolved which is called as e-Learning. E-Learning facilitates any where any time

learning that gives the learners a unique advantage over learners in traditional environment.

### **LIFE LONG LEARNING**

In this KBE, knowledge gets obsolete very quickly and so it is our prime duty to make students aware and get them prepared to become life long learners. Students must be developed the mindset of life long learning even when they are in schools. Learning does not stop when one leaves school; rather it is the beginning of a lifelong journey. To ensure a long term success it is high time that students along with their core skills must be equipped by giving training in their areas of interest and talent in order to excel. This is the only model that identifies the students as an individual and brings out best in them.

### **LEARN-UNLEARN-RELEARN MODEL**

Educational institutions must cope with rapid changes in KBE and how they are going to do is a challenge. For doing this student must be made proactive and should be made to have the capability to unlearn wrongly learned things, things that are not relevant and then develop in them ability to relearn that is available latest in the market. This learning model of training and retraining is applicable to every one.

### **STRATEGIC ALLIANCES**

The fastest way to keep afloat in the changing environment is to form and establish strategic alliances with other like-minded similar business partners. Technology becomes obsolete very quickly. Every two hours a new technology comes into vogue especially in the field of ICT as per NASSCOM report. So it is high time that strategic partnerships are established with industries and institutions, i.e. strengthening of Industry -Institute Interactions and Institute - Institute Interactions in order to achieve the vision 2020 as envisaged by the former President of India Dr.A.P.J. Abdul Kalam which could be made true through this kind of initiatives.

### **CREATIVE THINKING AND COMMUNICATION SKILLS**

In order to survive in KBE teachers, students and people in large should provide creative solutions to the problems. . In order, for just one idea to work, many ideas need to be created. The education institution is an ideal place for students to create ideas and, if possible, try out these ideas within confined and safe environments. At the same time, noble failure must be accepted, as failure is part of the learning process. Instead of being part of the problem, we should make them to be the part of the solution. Educational institutions should encourage students to think in creative ways to come out with ideas which could be

made as an idea bank and can make them to execute the ideas in a safe and conducive environment.

## CONCLUSION

In a KBE, Knowledge, People and Technology are intertwined and so educational institutions must play a pivotal role in training of vibrant and flexible workforce or students who could adapt to the surging changes. The above discussed process will help to ensure long term economic and social success.

## REFERENCES

- Badie, F.2015a. A semantic basis for meaning construction in constructivist interactions. *In: Proceedings of the 12th International Conference on Cognition and Exploratory Learning in Digital Age*, pp. 369–376. International Association for Development of the Information Society (IADIS), Greater Dublin, Ireland
- Badie, F.2015b. Towards a semantics-based framework for meaning construction in constructivist interactions. *In: Proceedings of the 8th International Conference of Education, Research and Innovation*, pp. 7995–8002. International Association of Technology, Education and Development (IATED), Seville, Spain
- Badie, F.2017. Towards semantic analysis of mentoring-learning relationships within constructivist interactions. *In: Emerging Technologies for Education*. Springer International Publishing. Springer Lecture Notes in Computer Science. Proceedings of International Symposium on Emerging Technologies for Education, Rome, Italy  
[https://doi.org/10.1007/978-3-319-52836-6\\_13](https://doi.org/10.1007/978-3-319-52836-6_13)
- Bates, T., Spector, M., and David Merrill, M. (eds.).2008.Special issue: Effective, efficient and engaging (E3) learning in the digital age. *J. Distance Educ.*29(2)
- Biggs, John B., and Collis, Kevin F.2014. Evaluating the Quality of Learning: The SOLO Taxonomy. Structure of the Observed Learning Outcome. Academic Press, New York
- Chierchia, G.2009. Dynamics of Meaning: Anaphora, Presupposition, and the Theory of Grammar. The University of Chicago Press, Chicago
- Coccoli, M., Guercio, A., Maresca, P., and Stanganelli, L.2014. Smarter Universities: a vision for the fast-changing digital era. *J. Vis. Lang. Comput.* 25: 1003–1011  
<https://doi.org/10.1016/j.jvlc.2014.09.007>
- Gabbay, D.M., and Guenther, F.2010. Handbook of Philosophical Logic, vol. 15. Springer Science & Business Media, University of Chicago Press, Chicago
- Larsson, S.,2012. Formal Semantics for Perception. Workshop on Language, Action and Perception (APL), Center for Language Technology, Gothenburg.
- MacKay, D.2003. Information Theory. Inference and Learning Algorithms. Cambridge University Press, Cambridge.
- Merrill, M.D. CA .2013. First Principles of Instruction: Identifying and Designing Effective. Efficient and Engaging Instruction. Wiley, San Francisco.
- Peterson, .1997. Improvement to emergence: An organization-environment research agenda for a postsecondary knowledge industry. National Center for Postsecondary Improvement, Stanford, CA.
- Ramsden, P.1998. Managing the effective university. *HERDSA*,17(3):347-370  
<https://doi.org/10.1080/0729436980170307>
- Von Foerster, H.2003. Understanding Understanding: Essays on Cybernetics and Cognition. Springer, New York.  
<https://doi.org/10.1007/b97451>