

## **FUTURISTICS - - TTTI AND EXTENSION CENTRES**

**L. G. CHITNIS**

### **1.0. INTRODUCTION :**

Many factors are affecting the traditional roles of many institutions / organizations. Educational institutes can not remain isolated from these changes. Rate of changes will be accelerating, in geometric progression. Prediction of situations, 10-15 years hence, is risky. The following is an attempt to predict future roles of TTTI's and EC's which may at best be an hazardous guess.

### **2.0. FACTORS FUELLING CHANGES :**

Change is a sign of life. It is only a permanent thing in the world. Most of the changes are acting in tandem, each changing in geometric progression, making it difficult to even hazard a guess. Predictions are based on present knowledge and data which are ephemeral.

#### **2.1. Population Explosion :**

Every year one Australia is added to India's population. Number of illiterates is increasing. Number of aspirants of education is increasing at rapid rate.

#### **2.2. Knowledge Explosion :**

Quantum of knowledge is doubling every 5-7 years. Period of obsolescence is shortening rapidly. New, unknown, disciplines are emerging every now and then

#### **2.3. Technological Developments :**

This is going hand-in-hand with knowledge explosion. New tools, techniques, practices continuously replace the old ones giving way, in turn to newer ones. Development in IT and cybernetics indicate the pace of developments in technological developments. It has expanded the reach and capabilities of human faculties.

### **3.0. EFFECTS OF CHANGES :**

#### **3.1. On Industry :**

Mixture of various components will change dramatically. Service sector will dominate over manufacturing sector. Continuous upgradation of work force will be a constant endeavour. Horizontal shift of work force will predominate the vertical shift. Permanent, core, employ-

ees will consist of small group, while most of the employees will consist of temporary ones which can be added or subtracted as needed. Major part of work will be got alone from outside agencies. Job security, long term employment and upward mobilization will be the things of past.

### 3.2. Model of Schooling :

Present day educational system, modelled on factory working, teacher centred, consisting of programmes of independent disciplines and rigid structures will prove to be totally inadequate, uneconomical and effective. New model will have following features :

#### 3.2.1. Learner's Autonomy :

Learner instead of teachers will decide as to what he / she has to learn, at what pace and by which mode.

#### 3.2.2. Distance Education :

Learner will learn at his / her place / on his / her job when it is convenient, 'school will be where learner will be'.

#### 3.2.3. Life Long Education :

One time education will be a thing of past. One will have to always keep one self update with the developments. Continuous retraining, refreshing will be an order of the day. This will require short, objective - specific programmes.

#### 3.2.4. Multi-Disciplinary Programmes :

The long term, basic, initial programmes will have to be tailored as per learner's requirements; hence they will be multi disciplinary in nature.

#### 3.2.5. Roles of Teachers :

As seen above, due to drastic changes taking place, teachers roles will

also undergo changes.

In the past, face-to-face mode of teaching - learning was the only method available. Invention of printing changed that role drastically. Now the knowledge and information could be stored and transported, making the tasks of both the teacher and the learner that much easier. Developments in multi media packages, powerful and speedy computers, LAN, WAN, Internet, E-mail, Teleconferencing, Interactive T.V. etc. will completely change the roles of teachers. K-level information and knowledge will be taken care by CD, interactive T.V., Videos, Multi-media packages etc. For other level abilities in cognitive domain, teachers' involvement will be reduced to a great extent. Face-to-face interaction may remain necessary for psychomotor - domain abilities, new roles of teachers and corresponding abilities required of them will have to be visualized.

### 4.0. NEW ROLES OF TTTIs AND EC's:

Due to the effects of changes on schooling systems, seen above, the roles and organizational structure of TTTI and EC will have to be viewed afresh.

Teacher population may be undergoing quick changes. Abilities to be imparted to teacher will also change. More use of newer tools in communication will have to be put to use. Teachers may have to be trained at their places. Abilities of advising, counselling and facilitating may form big chunk of overall abilities of programmes. TTTI and EC also will have to "Without Walls".

EC's may not have to work as link between TTTI and state, as direct com-

munication will be quicker and efficient. They will require more autonomy, independent existence, more strength, financially and in personnel. They will act as STITIs (State TITIs). They will have to interact not only with teaching institutes but also with industries. They will require abilities and means to foresee changes likely to take place, with respect to respective states, and prepare them-

selves to meet with the changes.

#### 5.0. CONCLUSION :

To peep in distant future is like peeping in long tunnel, in dark night, with a small hand torch. This topic can be kept open for discussion, and be discussed, amongst interested parties so as not to get overwhelmed by the changes.

★

#### SUBSCRIPTIONS :

##### In India

Rs. 500/- p.a. for Institutions & Organizations

Rs. 200/- p.a. for Individuals

Rs. 50/- single copy

##### Outside India :

US\$ 80/- p.a.

#### ADVERTISEMENT RATES :

Rs. 5000/- - Cover Page No. 4

Rs. 4000/- - Cover Page No. 2

Rs. 3000/- - Cover Page No. 3

Rs. 2000/- - Inner Full Page

Rs. 12000/- - Sponsoring one issue

Rs. 10,000/- - Co-sponsoring one issue

#### ADDRESS FOR CORRESPONDANCE :

The Editor, The Journal of Engineering Education  
"Shriniwas", B-8, Kasturba Society, Vishrantwadi,  
Pune - 411 015 (INDIA). Phone : 693072