

ANTICIPATED CHANGES IN THE TECHNICAL EDUCATION SCENARIO - SOME ASPECTS

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This article discusses the expected structural changes in technical education, in the years to come due to privatisation of engineering colleges and liberalisation of economy. Technical education has to reflect changing needs of the Indian Industry. It would be advisable for the technical institutions to anticipate the changes desired by the industry and change voluntarily so as to avoid a forced change and a violent shock by the law of nature.

Technical education is going through a sharp transition from government aided institutions to self financing institutions. One positive view of this change is that it gives a sense of responsibility to the students and teachers, who come to know of the real worth or the real value of the education. So far the higher education was a feast to a lucky few at the cost of starving millions. Since, a benevolent government was bearing all the cost, considering wastage, did exist towards supporting non-serious students and also towards supporting courses for which society had no demand. Many courses continue just to provide continued employment to existing teachers, and serve no pur-

pose to society.

It is worth recalling that gurus in the vedic & pre-historic era refused to accept authority of kings and rulers and stayed away from the cities in Gurukuls at considerable discomfort to themselves but preserved their supremacy in the society. Even in the historic period, Guru Chanakya confronted the mightiest Magadh empire & took a short sabbatical leave to re-organise the weak political fibre in that society. Unfortunately, today the autonomy granted to universities is merely on paper and major university decisions on choice of students, teachers and the date of examination is determined by either the politicians or the student unions. Even in the post independence India Dr. Homi Jehangir Bhabha refused to accept government aid for his nuclear research programme and insisted on running his research programme without any beauracratc controls. Then prime minister Bharatratna Jawahar lal Nehru requested him to accept state financing without paying a price of autonomy. Unfortunately, Post-independence India lacked a similar leadership in the field of education who could refuse doles from

the government and insist on autonomy.

Present growth of the self financing institutions is not refusal by the academics to accept doles but, the reluctance of the rulers, to give anymore. Rarely, are these self financing institutions managed by academics and quite often, they are designed to satisfy objectives other than academic. It is excepted that self financing institutions shall cause following social change :

1. Initial phase of strict regulation with all the ills of license-permit Raj.

This phase of strict regulation shall also tend to be conservative in employer-employee relationship. Conservative work norms shall give job security to employees & promotion by seniority resulting in low incentive for excellence. In the license-permit Raj demand for engineering institutions shall far outstrip the availability of seats, enabling even the badly managed engineering colleges to survive. Teachers once in employment shall continue to remain in employment and shall get their promotions merely by seniority; giving them no incentive for learning new skills. Majority of the engineering teachers shall have no links with the industry and shall not be aware of the changing needs of the industry. Curriculum development may also fall in the hands of the teachers, allergic to industry and result in engineering graduates with no employable skills. Multinationals entering Asian countries have already started talking about shortage of engineers in the ocean of unemployment.

Initially, the industry shall give the

benefit of doubt and pick-up whatever these engineering institutions produce. However, in course of time, under stiff international competition, the industry, especially, the multinationals, might find that the gap between their needs and the skills available is too wide. This might result in refusal of the industry to accept the products causing with large scale unemployment to engineers.

This will have following frightening consequences to the self-financing institutions, their product & to the society :

a) Students shall not seek admission into the colleges producing unemployed engineers, and certainly not, after bearing the full cost of education. The colleges, if, still under regulatory controls, shall not be able to alter either the curricula or the faculty and will have to sink with it's hands & legs tied. Demands are already being made in many govt. subsidised engineering colleges for reduction of seats since, they are producing unemployed engineers.

b) Industries unable to get competent engineers might close down resulting in flight of capital from this country.

c) Industrial survival may necessitate immigration of engineers. In presence of, a large number of unemployed engineers, jobs to immigrants shall create considerable social tension and perpetual unemployment for those in the pipeline of this social change.

2. As usual, after a initial phase of license & control, the limitations of this system shall become obvious and move for deregulation might start.

De-regulation might enable some fly-by-night operations to open engineering colleges. Some very capable managers shall also start good engineering colleges throwing a challenge to existing institutions of poor or medium quality. Some poorly managed institutions shall survive a little longer by reducing the tuition fees and giving engineering degree at the price of polytechnic education.

These low cost engineering institutions shall try to exert pressure on their universities to lower the examination standards and some of the universities shall have to succumb to this social and political pressure. This will further widen the gap in quality of products from various universities and reliance on grades awarded by the universities shall become still more difficult. This will necessitate national qualifying examination and make university degrees irrelevant.

In the competitive environment, it would become necessary for teachers to update their skills, even to stay-put in their present position. The next question shall be, as to who should bear the cost of retraining; the employer or the employees? If employee bears the cost of retraining, he should be allowed to recover the cost of retraining through his individual bargaining power with his employer. This would mean that the present system of collective bargaining

& uniform salary scale shall have to give way and people with specialised skills allowed to dictate their terms at the cost of other individuals & disciplines where manpower is available in abundance and where there is no need for retraining. The present system of collective bargaining and uniform pay-scales is very easy to implement but, encourages strikes & lockouts sequentially, all through the year, by different unions in the institutions turn by turn. Air India is suffering this malady and many universities have already started getting a feel of the labour trouble.

Similar competitive environment might emerge in the industry also creating a heavy demand for teachers capable of retraining engineering professionals. This is expected to be highly rewarding and great opportunity for additional quality improvement.

However, it appears difficult to conceive of a situation where employees will dispense with their right of collective bargaining & job security. Attitude of regulatory authorities & judiciary also appears to be in favour of status-quo. Since even the socialist countries have dispensed with the theory of equal wages for all, the transitions to free-enterprise is thus, unavoidable. Only point is whether this change shall be brought about by a social reform or come as a violent shock by the law of Nature.

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