Chapter 12

Collaborative Outreach by Industries to Promote Education and Employment Leading to Regional Development

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ABSTRACT

India is the third largest country in the higher education space with an unemployment rate of 4.8 percent. There is clear gap between academic deliverables and expectation from the employers and industries. Experimentation based learning is not leveraging actual knowledge as the process based learning happens while the candidate is on the job. The current employment greatly depends on the industry, academia, research and government sectors. To gain an entry in to each of these segments, the candidates need skillsets ranging from strong technical background, aptitude, communication skills, and working in teams. There are multiple ways through which the skill building is carried out by independent, government and industrial organizations. As an ecosystem, both academia and the industries should step forward to bridge the gap and utilize the human potential to the fullest to drive the growth of each industrial sector and the region at large. This chapter outlines the outreach of industries through initiatives to bridge the gap between the academia and industry to promote regional growth. The opportunities, the gap that exists, various initiatives are discussed in detail.

INTRODUCTION

In our school days, most of us encountered a point where we needed to decide what we would like to study further--science subjects, arts, commerce, technical etc. Science education holds a certain fascination since it provides an opportunity to understand what is that you are made of and about how things work. Most of the time, this urge to learn the things about and around us, compels us to improve them. Frequently, however, the right connections with the realities of the work world are not being made through formal
education, and graduates are ill-prepared to select jobs and step into roles needed for vigorous regional development. Indeed, many don’t learn of opportunities for scientists in industry until after they graduate.

As leaders in industry consider how they might collaborate to improve preparation for the productive positions they offer for young scientists, they find that their region is a complex network of strongly interrelated components like, but not limited to culture, environment, industry, education, governance. Education plays a vital role in understanding and improving the components and is viewed as a socio-economic need but our institutions often lag behind advances in industry.

The governance of education is centralized and the execution is regionalized in the Indian context. The curriculum, teaching and learning tools, evaluation and certification are controlled centrally, though there are state controlled schools. The Ministry of Human Resource Development (MHRD) plays a significant role in balancing the socioeconomic fabric of the country. The activities of ministry focus on the holistic development of the citizen through two departments: the Department of School Education and Literacy and the Department of Higher Education. There is also an arena of private schools and colleges of higher education that are managed by private sector and regulated to some extent by the central government in terms of syllabi, evaluation and certification.

College education in India is managed by the department of higher education and specifically by the University Grants Commission (UGC). From ancient Bharat to modern India, higher education has always occupied a place of prominence in the Indian history in bringing about revolutionary changes in the society at large. UGC coordinates, determines and maintains the standards of university education in India. In order to ensure effective region-wise coverage throughout the country, UGC has decentralized by setting up regional centers.

Having said that government departments play significant roles in development by offering education to all sectors of students both at school and college level, employability of graduates remains a matter of concern. The reasons for the unemployment vary from population size to dignity issues in terms of suitability and ego of not taking up small caliber work. Millions of graduates pass out from thousands of educational institutions every year and approach government, institutions and industries for employment. Industries employ a small proportion of graduates; the remaining are excused as inexperienced / fresher, and those who are employed are not necessarily finding a job in their areas of study or interest. The graduate also may need to compromise on career choices due to family and peer pressure and compelling family reasons to start working.

This chapter is based on the premise that the reasons the industry is not hiring more recent graduates is that they are not industry-ready. It suggests that industry cannot idly sit by and wait for government and university collaborators, but is challenged to reach out to universities in order to fill the gap between the academic deliverables and the expectations of the industry.

Why is there a gap? Science and engineering education provides the opportunity for students to learn principles theoretically and in some cases to gain hands on experience. The extent of the knowledge transfer primarily depends on the facilities available in the institutions, including faculty experience and infrastructure to include practical learning experience in the curriculum.

Initiatives are being taken by educational institutions to bridge this gap by providing an opportunity for students to take up internships in industry, developing finishing schools & center of excellence and having industry representatives in their Boards of Studies (BOS) to bring industry-specific core or elective subjects to enhance employability of graduates.
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