### Chapter 10

# Collaboration Between Industries and Higher Education Institutions:

The Indian Scenario – Revisiting Strategies Methods and Practices in Alignment to Education 4.0: A Case Study

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#### **ABSTRACT**

In a year, nearly two million students pass out form higher educational institutes in India, of which the number of directly employable students is much less. There is a colossal vacuum created between industry and institutes with fourth industrial revolution picking up pace in India. HEIs need to cope with the digital skillsets required of their students. In this chapter, the authors have put together different strategies that can help fill these gaps. Many institutes have led from the front by implemented path braking methods that are giving the expected outcome. Practices that are followed and one that should be followed by institutions have been discussed. A view of how government, non-government, industrial, and educational entities in India work together to bring about Education 4.0 is explored.

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#### BACKGROUND

Industry academia collaboration is considered to be of considerable significance owing to the evergrowing need for innovation and technology transfer in the segment of business in the era of industry 4.0. The intent of the education policy makers is to commercialize the academic knowledge through research, consultancy, and services thus aligning to the Education 4.0 principles. The non-for-profit alliance with the stipulated public and private bodies to promote the public service dimension of research i.e. for the mutually beneficial exchange of knowledge and resources is being circumvented by the Indian Government and similar regulatory bodies to bring in major progression in the local economy. Another challenge that requires considerable discussion and deliberation is the low percentage of students going in for higher education which is an important deterrent for progression in the Indian Economy and subsequently transitioning to a robust knowledge base form, table 1.

Table 1. Tertiary Education Enrollment in percentage (Adapted from http://uis.unesco.org/en/country/in)

TERTIARY EDUCATION	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	17.83	22.76	24.27	23.79	25.43	26.77	26.83	27.44	28.06
Female	15.06	20.09		23.16	25.4	26.82	27.04	28.04	29.06
Male	20.33	25.16		24.36	25.46	26.72	26.64	26.91	27.17

#### INTRODUCTION

The progress of a nation is well achieved if the education system is in sync with the industrial progression. It is the onus of the higher educational institutes to make provision for skilled resources to fill in the industrial positions. To achieve this, it is imperative that HEIs maintain continuous interaction with the industries for diverse engagements. With Industry 4.0 running its course across the globe, India has also walked into the era of robotics and intelligently connected supply chain. This has carved a path for the Indian Education System to rethink and recreate new teaching and learning pathways in alignment with Education 4.0 which focuses on skilling and re-skilling resources based on the multi-segment advancements and changes in job roles and profiles that are anticipated and foreseen. Currently, the Indian HEI segment is experiencing a paradigm shift by focusing on prime upcoming technologies, changed classroom teaching scenarios, teachers in the role of facilitator(Natarajan, 2020), experiential learning through virtual lab setup, and simulated environment. HEIs of India have also encouraged improvised personalization in the teaching and learning segment and has been a strong proponent of the choicebased credit system which offers great flexibility to the student stakeholders. Learning, specifically the online learning segment, has also seen a surge of activities owing to the current scenario. Television channels for the education of school goers, learning apps, video lectures with interactive meet through different platforms for undergraduate and postgraduate students. Online professional degrees on various components of the fourth industrial revolution all have laid a platform for bringing in a revolution in the higher education segment of India. Needless to say that the revolution has been instantiated owing to the onset of the Fourth Industrial Revolution that is blurring the lines between physical, digital, and 22 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

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