

## Chapter 9

# Surmounting the Five-Headed Dragon: Best Practices of Technical Institutes in Rural Maharashtra – Success of the Institution in Online Education

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### ABSTRACT

*In India when all educational institutes were closed in March, the delivery of knowledge shifted completely to online mode overnight. In the current age of technology and to combat the corona crisis, this online learning approach was highly commendable. There were phenomenal challenges, like a significant proportion of the rural population in Maharashtra continues to fall short of the required internet bandwidth and knowledge to recognize devices and digital terminologies. The absence of supporting infrastructural facilities such as a stable flow of electricity and unavailability of high-speed internet is the second major issue involved. Despite these challenges, a few technical institutes in Maharashtra had worked hard on surmounting the five-headed dragon, namely rural settings, first-generation learners, digital illiteracy, lack of supporting infrastructure, and inadequate online teaching skills. The chapter will present the educational transformations brought in by these technical institutes during and post-pandemic and the way forward to rethink learning in the new normal.*

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## **INTRODUCTION**

India boasts with a population of about 500 million, it has the world's biggest population of persons aged 5 to 24. In FY19, there were 39,931 colleges in India. In FY21, India has a total of 967 universities (until December 2020). India has 37.4 million students enrolled in higher education in the current fiscal year. Higher education had a Gross Enrolment Ratio of 26.3 percent in FY19. After the United States, India is now the world's second-largest e-learning market<sup>1</sup>. Many of the Engineering and Management institutions are located in a rural part of India where no basic resources are available such as Proper Infrastructure, Technological advancement etc. Rural areas are defined by the RBI as areas with a population of less than 49,000 people (tier -3 to tier-6 cities). According to popular belief, the rural parts of India house up to 70% of the country's inhabitants. Hence, getting conventional higher education to these people is one of the great challenges.

In India, educational institutions are now primarily centred on conventional learning techniques, such as face-to-face lectures in traditional classrooms. Despite the fact that many academic units have started to adopt blended learning, many others continue to use outmoded methods. The unexpected breakout of the Covid-19 epidemic wreaked havoc on the entire planet. The education industry was one of the hardest hit. Due to WHO's announcement of school and college closures to prevent and mitigate the effects of Covid-19, millions of students and teachers throughout the world went virtual. Because of the Covid-19 pandemic, online learning has become commonplace all across the world. When all educational facilities in India shuttered in March 2020, information delivery transitioned fully to the internet channel. The perspectives about the challenges and solutions in online education of teachers and students at a prominent technical institute in rural part of Western Maharashtra during their abrupt switch to online teaching are reflected in this unit.

Dealing with the dragon is the most dangerous task which we must have seen in most Hollywood movies. The five key challenges faced by institutes during the pandemic and post pandemic is nothing more than handling a five-headed dragon. The teachers and students from many engineering and management institutions have applied well thought strategies to deal with the five challenges viz. rural settings, first-generation learners, digital illiteracy, lack of supporting infrastructure, and inadequate online teaching skills etc. In the early stage of COVID-19, the question raised was to deal with all these challenges but with the support of available resources and proper training provided by the institutions teachers and students of many engineering and management institutions have cope-up with the challenge. This chapter will unfold the many aspects of success of institutions in conducting online classes of engineering and management graduates during this pandemic situation. This chapter is concentrating only on these five challenges and the remedies done by the faculty and students.

## **BACKGROUND OF THE STUDY**

The study was taken into consideration by adopting inductive approach. When it comes to Online Education or E-Learning, the rural population lacks basic amenities such as high-speed internet, reliable power, and technological gadgets. Although there have been advancements in basic infrastructure, many rural communities in India continue to face problems in making education totally digital or online<sup>2</sup>. Only 15 percent of the households in India have access to the Internet, and mobile broadband remains accessible to very few, i.e., only 5.5 subscriptions for every 100 people. Further, the reach of broadband

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