

Bridging Academic – Industries Skills Gap: A Case Study MCA Institutes in Mumbai

Deepak Shinde¹, Akshay Shishupa¹, Prof. Desai²

¹MCA Student, ²Professor

^{1,2}Bharti vidyapeeth's Institute of Management & Information Technology, Navi Mumbai, Maharashtra, India

How to cite this paper: Deepak Shinde | Akshay Shishupal | Prof. Desai "Bridging Academic – Industries Skills Gap: A Case Study MCA Institutes in Mumbai" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-3 | Issue-4, June 2019, pp.1660-1663, URL: <https://www.ijtsrd.com/papers/ijtsrd25204.pdf>



IJTSRD25204

Copyright © 2019 by author(s) and International Journal of Trend in Scientific Research and Development Journal. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0) (<http://creativecommons.org/licenses/by/4.0>)



A study by the analytics firm Aspiring Minds found that only 4.8% of candidates could write correct logic and less than 1.4% could write correct code.

This obviously reflects in the employability of the engineers -- of more than 1.5 million technical people who graduate each year 80% are unemployed and close to 45% can be made employable with the right intervention. It is estimated that more than half of the 4 million engineers in tech will need to be re-skilled to relevant to the industry.

SKILL SET

About 90 per cent of employment opportunities require vocational skills. Only 20 per cent of our graduates get employed. The rest are unable to get suitable employment due to the lack of employable skills.

From my personal experience, I observed that when students are given a real time scenario and asked to create programs for the same they are unable to make that. The mindset observed that, they understand only the code or programs which are taught in curriculum but not able to apply the same in actual scenarios. They understand them conceptually but applying to real life scenario is lacking as they have actually not seen the

ABSTRACT

Humans are the best version among all the creatures and what make them best is the education. No other creatures could get the education and more humans also seem like same other creatures because the differentiate factor 'education' lost his true meaning in the academic world. As no one follows their own true self. Here we try to lighting a lamp to alight the darker side of student's life during as well as after complication of MCA (Master In Computer Application). The purpose of this Paper is to present various principles of good practices in education. It also presents the learning gap between a teacher and the student and techniques to reduce the gap. It also elaborates the various Competency requirements for the Graduate students.

1. INTRODUCTION

According to the survey made by Trading Economics [5], Unemployment Rate in India is expected to be 4.8 percent by the end of 31 March 2017 and in the long-run, the India Unemployment Rate is expected to be around 4.60 percent in 2020. Indian universities produce millions of graduates every year, but only about 20% of them are absorbed into various industries. An unemployable workforce is at the core of India's employment crisis.

Forbes has listed AI, ML and Cloud in the top 10 digital skills to possess as part of the emerging tech portfolio of skills. 25 million to 50 million jobs are going to be created in emerging tech worldwide and India alone will require 6 million to 12 million jobs in this space in the next decade according to a McKinsey study. However, the technical students of today are not being skilled right.

actual implementation of the subjects that they are studying. Likewise in MCA(Master In Computer Application) there is a subject on data structures and students of institute learn it literally by definition and they never know where it will be actually applied in real world. Expression of students to explain the solution is also lacking communication skills.

Skills Required In Student

- Awareness of industrial environment
- Good Communication
- Problem solving technique
- Increasing grasping power
- Remain calm in every situation
- Enthusiastic about learning
- Meditation habit 10 to 20 min in every 3hr
- Technical knowledge
- Team spirit
- Innovation skill
- Commercial awareness
- Attitude towards work
- Lifelong learning
- Self-management

Industry Requirements

As soon as student comes out of collage he aspires to gain a lot from his qualification. But actually that is not the case. The rejections in placements happens because of communication gap between employer and perspective employee. The skills which industry is expecting are as follows:

1. Core Skills:
 - A. Knowledge on specialization subject
 - B. Practical knowledge of subject.
2. Soft Skills
 - A. Attitude, commitment and ownership
 - B. Reasoning and learning ability
 - C. Communication skills
 - D. Team spirit
 - E. Innovation skills

Reasons for "Academia- Industry Skillset Gap"

"The ability to apply the concepts learnt to constantly develop innovative things and find solutions to complex problems are main factors working behind the employability of an engineer."

"The state of the economy also plays a major role for employment generation. Industry insiders say that in a strained economic condition, companies do not want to spend much on training and would prefer candidates with some skill sets who can be made billable soon."

Location factor: According to the Aspiring Minds report, in Tier-1 cities such as Mumbai, Bangalore and Hyderabad, 18.26 per cent of software engineers are job ready, while in Tier-2 cities such as Pune, Nagpur and Surat, 14.17 per cent are employable.

This shows that the candidates from lower tier cities are not getting the same opportunities as those hailing from Tier-1 cities, even if they are equally qualified and skilled. The chances of finding a job for such a person is 24 per cent lower and the earning per-year salary would also be Rs 66,000 lesser".

"The traditional education sector in India has not evolved at the same pace as the industry. The expectations that the companies have from their candidates and the skills that MCA graduates bring in, do not match".

Major problems with technical education in India:

1. Syllabus not updated regularly:

The course contents do not focus on areas which will actually help in the job industry after employment. There is a big gap between what the market needs and what Indian education equips its future employees with. Despite exponential changes in science and technology round the world, the syllabus is hardly ever updated.

"For instance, while mobile computing is proving to be the next growth driver for the industry, the curriculum does not reflect it."

2. Lack of quality teachers:

There are more than 33,023 colleges in India granting degrees. There are not enough quality teachers for all of these educational institutes.

After multinational companies, the IT big shots of India, and the smaller engineering companies have had their pick, many from the remaining technical student graduates go on to get a PhD and join as faculty at engineering institutes. Thus, unlike other parts of the world, the Indian faculty is not comprised of the very best of the industries who have the skills to create brilliant students.

Most educated technical student join teaching as a profession not because of passion, but because they have to earn a livelihood. The few good professors prefer administrative positions because of lower intellectual demands coupled with higher pay packages.

Faculties fail to teach students the real life applications of various concepts being taught. The professors are more research oriented and they don't know how to make their research into a product which could be commercialized and how to make money out of it.

3. Lack of innovation and research:

Students need to be motivated enough to innovate or think for themselves. As the new HRD minister Prakash Javadekar recently said, "Why do we lack innovation in India? Because, we don't allow questioning. We don't promote inquisitiveness. If a child asks questions in school, he is asked to sit down. This should not go on. We need to promote inquisitiveness, children should ask questions."

Students must be given the space and scope to think and innovate, to question and come up with solutions. This applies to both school education and higher education.

Such are Indian students trained right from their primary education that they never learn to question or innovate. Rote learning instils in students a sort of complacency for more than 12 years of education and they are unable to make the shift from un-questioning learners to innovators in the job market.

4. Process of Evaluations

The process of evaluating the student in academic is based on grades obtained in examination but in corporate, the evaluations is based on performance of the students as per type of projects he has handled and challenges he has faced and overcome.

5. Industry people are not seriously involved in updating the curriculum of Academics:

Industry people are very busy in meeting their own deadlines of various projects in the company and so they don't get enough time to invest on updating the curriculum of Academics.

6. Faulty education system:

Semester systems and the process of continuous evaluation are not fulfilling their desired roles as the students are not interested in continuous learning-they only want good grades. Unless the specific purpose of such initiatives is properly understood by faculty and students alike, these methods likely would not work.

7. Lack of skill-based education:

Skill-based education is another immediate need. Technical students need to have hands-on training on the basis of the problems they are likely to encounter in the real world.

"One of the major problems facing the fresh graduates is their insufficient understanding of basic concepts. The lack of in-depth understanding of technical information, lack of client-handling skills and insufficient knowledge across domains are the major skill gaps in the area".

While the vast numbers of engineering students in the country study their textbooks, give their exams and collect their degrees, it is only when they encounter the real world problems do they realise their shortfall. By then, they have to take extra time in order to skill themselves or suffer unemployment.

"Initiatives like the Start-up India and Make in India are positive efforts taken by the government in this direction to boost employment opportunities for engineers."

8. Importance of college name:

According to the Aspiring Minds report, companies are prone to visiting only top colleges to recruit potential employees. Thus, resumes from relatively unknown colleges do not get shortlisted.

This not only creates a lack in equal opportunities, but also causes a deficiency of quality employees as this process ignores a huge number of meritorious students who do not study in top tier colleges.

9. Ease of permission from state governments:

A major cause of mushrooming engineering colleges is the ease with which state governments grant permission to little-known barely-trained educational trusts and organisations to set up the same.

Karnataka's Visvesvaraya Technological University (VTU) oversees as many as 200 engineering colleges, while in all the 50 US states combined, there are about 1,000 accredited engineering colleges.

10. The IT 'employability':

The Aspiring Minds report says that despite the fact that the IT sector carries out the highest number of recruitments from the pool of engineers, only 18.43 per cent engineers are skilled enough to work there, while, for IT product roles, the numbers are as low as 3.21 per cent.

Due to comparatively higher employment in the IT sector, students even from other disciplines take up IT-related courses. Thus, the end result of this inadequate education creates engineering graduates who are not well-versed in their core subjects, nor in IT.

11. Lack of proper English skills:

The study attributes the lack of English communicative skills, which they found in 73.63 per cent of candidates, and low analytical and quantitative skills, which they discovered in 57.96 per cent of candidates to be other main reasons for unemployment.

Even the IT sector requires employers who are fluent and well versed in English, as within around two years of experience on the job, they would have to communicate with international customers. Thus, if the quality of engineering graduates do not improve, IT sector hiring will also go down.

12. Disregard of essential soft skills:

Soft skills have become very important in the present job industry, but they are routinely ignored in educational institutes.

This is perhaps the trickiest issue, "The lack of ability of the individual to deliver his views effectively at the interview leads to rejection of even the most brilliant candidate. This is because training institutes do not make an effort to ensure that the candidates develop their skills in a wholesome manner which can contribute towards client-handling and team communication skills."

The Government of India needs to sit up and take notice of the issues that are threatening the very future and stability of our country.

Measures To Bridge The Gap

Many companies are partnering with engineering collage and universities to align the education given at collages with the requirements of industries. Infosys has launched a program "Campus Connect", Wipro has also started a program called the Wipro Academy of Software Excellence, in association with BITS (Pilani). IITs are partnering with many industries to get practical knowledge for their students. Also IIT has started incubation programs which will help entrepreneurs or industries to do research work in the infrastructure provided by institute and support from experienced faculty. This will provide industry environment to students to learn with actual on job training.

Already an initiative taken by Government of India for skill development by forming a new ministry for the same.

NECESSARY STEPS THAT SHOULD BE TAKEN BY THE UNIVERSITY IN ORDER TO FILL THE GAP

1. Build- up a Joint Academic – Industry Partnership center.
2. Universities should focus on personal as well as professional development of students by encouraging them to be a member of some association like IEEE, CSI etc.
3. Students have less interest in attending lectures. This is because of the Learning gap between teachers and students. Different students have different backgrounds and different style of learning and Teachers should adopt with learning style desired by students and should give personal attention to each students.
4. Students should be encouraged to visit companies frequently along with faculties in a semester. This would help students to get awareness about Industry working environment.
5. Faculties should closely monitor the Student who are undergoing internships in Industry by frequently having surprise visits to industries. Faculty should also ensure that the duties and responsibility given to students by Industry are important, meaningful and considerable.
6. Industry people should be involved in designing the curriculums of the university and reviewed frequently so that the curriculum can meet the expectations of Industry standard.
7. Faculty should bridge the gap between theory and application by bringing into colleges live projects from Industry.

IMPORTANT CHARACTERISTICS OF PRODUCTIVE INDUSTRY – ACADEMIA RELATIONSHIPS

Following are the various advantages of Bridging the Gap between Academia & Industry.

REFERENCES

- [1] Promote the Relationships between Academia and Industry which includes research and innovation which in turn will contribute to the society.
- [2] Overcoming approaches of Industry and Academia which are based on self-interest without considering the needs of the society.
- [3] Build up trustworthy and good working relationship with legal agreements that include fair intellectual property and commercial rights.
- [4] Understand that Academia is mainly involved in education, learning, research and knowledge generation whereas industries are focused on producing products and delivering it to society with return in investment, and respect each other's working environment, ethical standards, goals and values.
- [5] To have honesty, transparency, flexibility and openness. This helps to establish long-term partnerships between Academia and Industry.
- [6] Identify which organizations can do to assist and promote such cooperation's to bring academia, government sectors and Industries to work with each other in harmony.

