Will We See More Undergraduate AI Courses In Future?

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With IIT Madras launching an online BSc degree in programming , last month, it has opened up a significant opportunity for anyone who passed class XII to pursue data science as a career. This raises an interesting question as to whether or not will we see more undergraduate degrees in artificial intelligence and data science?

During the launch, HRD Minister Ramesh Pokhriyal stated that according to data every year approximately 7.5 lakh students from India go out of the country to search for better education after class XII, which in turn act as a brain drain for the country. This initiative is aimed towards bringing quality education and unique courses right from the undergraduate level.

So far, the field of data science and AI has always been a favoured choice for professional level courses or postgraduate programmes after pursuing an undergraduate degree in computer science or mathematics. However, the rise in demand for AI professionals has created a buzz around the industry to offer more bachelors programs in AI.

In fact, the UK and US have already stolen a march over India in offering these bachelor's degrees with modules in AI. Carnegie Mellon University has been one of the first ones that started providing undergraduate degrees in artificial intelligence in the

US. Alongside, the Chinese Ministry of Education has also <u>initiated setting up AI programs in the country</u>.

Nonetheless, last year, India saw a <u>major proliferation of B.Tech degrees in AI</u>, which includes some of the prominent names like IITs, Amity University, Amrita Vishwa Vidyapeetham, to name a few. <u>Indraprastha Institute of Information Technology</u> is another university that has started offering undergraduate courses in artificial intelligence in collaboration with Infosys Foundation. <u>Sharda University</u> is also offering an undergraduate programme in machine learning to provide advanced knowledge on deep learning and artificial intelligence.

Having AI and data science in undergraduate degrees can be a positive step in making the next generation employment-ready in this competitive environment. Such an early adoption of data science and AI knowledge in the career will also augment the research and development activities of the country.

Pushing young minds towards AI will not only bridge the skills gap of the industry but will also help professionals understand the basic concepts of computer science, linguistics, cognitive psychology before actually diving deep into the sub-discipline of their choice.

Here are top reasons as to why we may see more <u>undergraduate AI courses in future</u>.

Undergrad AI Courses Will Help Students Start Early

Integrating AI in bachelor degree curriculum will help students understand its disciplines like machine learning, natural language processing, computer vision and robotics at a much early stage of their career, which will allow them to make a strong base and gain more knowledge on all the disciplines of the technology in future. Such opportunities will also provide them with new career avenues and will help them to choose a career path based on their interested specialisation.

With professionals opting for advanced AI courses, it restricts them to specific knowledge. However, with <u>undergraduate courses,</u> students would be allowed to choose for professions like ML researchers, AI consultants, etc. at an early stage of their career. With board knowledge of tools and technologies in the undergraduate program, young professionals will have more chances to sharpen their skills in their specialisation program. Alongside, a capstone project during undergraduate will help them get prepared for real challenges of the industry.

Increasing AI Undergrad Courses Will Bridge The Skills Gap

Data science and AI have been the fastest-growing sectors, which has been <u>predicted to create 11.5 million jobs by 2026</u>. However, the demand for AI experts entirely outstrips the supply. Such a skill gap can be the biggest reason for limited AI adoption in

organisations. In fact, according to a report, almost <u>22% of respondents identified the lack of institutional support</u> and late adoption of AI among professionals to be key reasons for this. Thus, more undergraduate AI programs will bridge the skills gaps of the industry with more young minds to explore their career in AI.

Alongside, having AI expertise comes with an expensive cost, thus with more professionals graduating with AI bachelor's degree will provide these companies to have more options while recruiting these professionals.

To shorten this skills gap, many tech firms have started collaborating with ed-tech companies to create a curriculum for undergraduate AI programs with skills and technologies that would be relevant to the industry in real life. Tech giants like <u>Accenture, IBM, Wipro</u> as well as Google have partnered with companies like Udacity, upGrad etc. to provide courses and training to make young professionals ready for the industry. In fact, in recent news, <u>IIT Roorkee has collaborated with WileyNXT</u> to launch an AI course for banking professionals, where the course has been designed to provide more opportunities for participants in the banking sector.

Advancement In AI Landscape

IBM's CEO once stated to the media that "<u>every company will become an AI company</u>," and therefore, having a dedicated undergraduate program for AI knowledge will also foster more research and <u>innovation</u> in the field. This, in turn, will advance the AI landscape altogether. More university programs on AI will also provide more opportunity for professionals to pursue research and academia, contributing more to society, making a meaningful impact.

Alongside, more AI integration at the undergraduate level will have a positive ripple effect on PhD courses and research areas, which, in turn, will augment the AI landscape. According to a report, it has been revealed that 77% of businesses agreed that AI technology would be fundamental for their organisation's competitiveness. Thus it is <u>expected to double up the rate of AI innovation by 2021</u>. A lot of this could be attributed to the increasing number of AI courses in the market.
When asked, <u>Rohini Srivathsa, National Technology Officer, Microsoft India</u> said, with every company becoming AI dependent, organisations need to be a fast adopter of this technology, and thus require to build a core team for doing so, which, in turn, would require more number of AI graduates.