

GOVERNMENT OF INDIA  
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 859**  
TO BE ANSWERED ON: 09.02.2024

**SKILLING OF CURRENT WORKFORCE IN THE FIELD OF AI**

**859. DR. FAUZIA KHAN:**

Will the Minister of Electronics and Information Technology be pleased to state:

- (a) whether Government is aware of the huge demand-supply gap that exists between Artificial Intelligence (AI) and Machine Learning and Big Data Analytics talent;
- (b) if so, the details thereof;
- (c) the data of individuals trained in AI under Future Skills Prime;
- (d) the steps undertaken by Government to reskill/upskill the youth in AI, ML and Big Data Analytics and filling the demand-supply gap; and
- (e) the details of implementation of recommendations of TRAI's consultation paper on 'Leveraging Artificial Intelligence and Big Data in Telecommunication Sector'?

**ANSWER**

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION TECHNOLOGY  
(SHRI RAJEEV CHANDRASEKHAR)

(a) to (d): The Government considers Artificial Intelligence is the most significant invention and innovation in our times. Artificial Intelligence has in recent times accelerated its growth and capabilities and we are experiencing an inflection point in the growth of AI. AI represents a kinetic enabler of our digital economy and will further catalyze our digital economy goal.

India over the last 9 years has become a pre-eminent nation in developing technologies for the benefit and transforming the lives of its citizens. In recent times, there have been deep changes in the workforce, which has created a need for a digital skilled workforce in India and around the world. It is the Government of India's vision to make India the global skill hub of the world especially in digital skills.

As per nasscom's report on "State of Data Science & AI Skills in India", published in 2023, the need for Artificial Intelligence and the corresponding expertise is rapidly increasing, and countries worldwide are competing to implement this technology due to its potential game-changing benefits. The AI market in India is projected to reach \$7.8bn in value by 2025, clocking a CAGR of 20.2% over the next 5 years. The report further estimates that India would need more than a million Data Science & AI professionals, and at present, India has a AI/ML Big Data Analytics tech talent demand-supply gap of around 51%, over an installed talent base of ~4,20,000.

It is one of the priorities of the government to ensure that the future skills program includes AI so that globally competitive talent in AI can emerge from India in the coming years. Keeping this in view, a number of programmes are being implemented for digital skilling all around the country including by NIELIT. FutureSkills PRIME (Programme for Reskilling/Up-skilling of IT Manpower for Employability) is one such programme that is being implemented in partnership with Industry which deals with technologies including AI & ML and Big data analytics. The FutureSkills PRIME follows an 'aggregator of

aggregators' approach for digital skills training through a national-scale online platform. Under the programme so far, more than 6.85 lakh candidates have been enrolled in various courses, out of which 2.92 lakh candidates have completed their courses. In addition, 40 C-DAC/ NIELIT Resource Centres (Lead/ Co-Lead Centres) have so far trained 10,986 Government Officials and 2,258 Trainers under the said programme.

There are 209 courses available that are specifically focused on Artificial Intelligence & Machine Learning and Big Data Analytics and 3.87 lakh candidates have enrolled in these courses, out of which 1.95 lakh candidates have completed their course(s). Also, C-DAC/ NIELIT Resource Centres (Lead/Co-Lead) have so far trained 2,072 Government Officials and 513 Trainers in Artificial Intelligence & Machine Learning and Big Data Analytics courses under the said programme.

NIELIT Centers have been engaged in Training and Capacity Building in various Future Skills Technologies. Three(03) of the NIELIT centers are working as lead centers and 25 of the NIELIT centers are working as co-lead centers in various technologies under FutureSkills PRIME project providing training in Bridge Courses (Blended), Govt. Officials Training, Training of Trainers in various future skills technologies viz. Artificial Intelligence, Robotics Process Automation (RPA), Internet of Things (IoT), 3D printing/ Additive Manufacturing, Big Data Analytics, Virtual Reality/Augmented Reality, Cloud Computing, Cyber Security, Blockchain Technology, Social and Mobile.

NIELIT is conducting specialized programs in emerging technologies/ Future Skills targeted towards empowering the youth of the country. In the last three years it has trained around 98420 participants in niche areas like – AI, Big data analysis, Cloud Computing, Cyber security, Block chain, RPA, 3D printing, Drone Technology, IoT, Electronic manufacturing, VLSI, AR/VR.

(e) TRAI has submitted its recommendations dated 20.07.2023 on “Leveraging Artificial Intelligence and Big Data in Telecommunication Sector” to Department of Telecommunications(DoT). The recommendations of TRAI are under examination by DoT and are available at: <https://traigov.in/notifications/press-release/traireleases-recommendations-leveraging-artificial-intelligence-and-big>

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