

OFFBEAT...DATA SKILLS

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Technology has slowly but steadily been replacing members of the workforce. There have been mixed feelings towards the adoption and growth of artificial intelligence (AI) and other sophisticated technologies. Some people foresee a future where most jobs will be taken over by smart, AI-enabled technology. Forbes contributor Larry Alton described this scenario in a recent post:

"The clear majority of us will be out of a job in our current capacities. ... [N]ew types of jobs will start appearing to replace those that were lost – at least to some degree ... Economic changes will be necessary. The future workforce will be lopsided unless we take proactive measures to encourage more diversity and foster a smoother socio-economic transition."

Businesses are being powered by data. There is now a demand for a new breed of professionals skilled in data, analytics, machine learning (ML), and AI. Over the next ten years or so, AI or ML code will become sophisticated enough to fully replace the roles most of us currently fill. Legal, medical, marketing, education, and even technological industries will slowly be driven towards machine workers and automation, requiring minimal human intervention.

There will be a rise in the number of data-oriented jobs, especially in finance, insurance, and IT sectors. Jobs in 2020 are



SPECIAL ARRANGEMENT

The future: Working in partnership with machines.

Data disruption

Changing priorities in the industry are an indication that students and fresh graduates need to upgrade their skill-sets

likely to look like these:

- **Data scientists and advanced analysts:** Includes data analysts, business intelligence analysts and economists. They will be primarily responsible for creating sophisticated analytical models, using data to derive new insights and provide solutions for client needs.

- **Data systems developers:** Data engineers, data developers, systems analyst and database administrators will be primarily responsible for designing, building and

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maintaining an organisation's data and analytical infrastructure.

- **Data-driven decision-makers** such as marketing analytics managers or IT project managers will oversee analytical operations and communicate insights to executives. They will be responsible for tak-

ing business decisions by optimising internal and external data.

- **Data specialists** will be responsible for specialised tasks related to data management and security infrastructure and will keep a check on the quality and quantity of data being used for various decisions.

Preparing for the change

Considering a growth in data-related jobs, there will be a pressing need for developing or hiring professionals who possess certain skills such as

MapReduce, Apache Pig, ML, Apache Hive, Apache Hadoop. Other skills such as Apache Spark, NoSQL, data mining, statistical/quantitative analysis and data visualisation will always be in demand.

The future will call for working in partnership with machines. To be in the game, everyone needs to transition smoothly into their new roles and be ready for change.

The author is Executive Vice-President and Co-founder, Absolutdata Analytics.