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Message

Data Science is a new discipline to change the world. 'Data science' is the new kid on the block. Data Science skills are machine learning, data mining, analytics, cleaning, visualization, scraping, using APIs to make data products, artificial intelligence, and much more. Big data analytics is the process of examining large and varied data sets i.e., big data to uncover hidden patterns, unknown correlations, market trends, customer preferences and other useful information that can help organizations make more-informed business decisions. Data science, also known as data-driven science, is an interdisciplinary field about scientific methods, processes, and systems to extract knowledge or insights from data in various forms, either structured or unstructured, similar to data mining. Languages like R, Python and SQL are part of the data science.

First, there is an enormous amount of new 'big' data; second, this has had a powerful impact on all the sciences; and thirdly, on society, the economy and our way of life. Data science represents these combinations. The data comes from wide-spread digitization combined with the 'open data' initiatives of government and extensive deployment of sensors and devices such as mobile phones. This generates huge research opportunities. In broad terms, data science has two main branches. First, what can we do with the data? Applications of statistics and machine learning fall under this branch. Second, how can we transform existing science with this data and these methods? Much of the second is rooted in mathematics.

To make this work in practice, there is a time-consuming first step: making the data useable by combining different sources in different formats. This is known as 'data wrangling', which coincidentally is the subject of a new Turing research project to speed up this time-consuming process. The whole field is driven by the power of the computer, and computer science. Understanding the effects of data on society, and the ethical questions it provokes, is led by the social sciences.

Some people never retire, but not necessarily because they still need to put food on the table. You'll find many individuals over a certain age who are financially well off and could easily stop working. But they choose to keep at it for various reasons, such as loving what they do. In this regard, data scientists are like anybody else. They choose to enter and remain in this profession for many reasons, with the intellectual challenge of the work high up on their priority list. In the hands of a data scientist, statistical models can unveil correlations and other patterns in real-world data that would otherwise have been overlooked. In addition, many data scientists are changing the world through disruptive applications of advanced analytics and algorithmic processes throughout business and industry. The best data scientists stay in this field because it's under their skin and they're always scratching the itch known as curiosity. They live, love, and breathe data and are always doggedly mining and modeling it for fresh insights. What they all had in common were a deep passion for data science, a need to engage their peers, and a desire to show others what they themselves can produce.

I believe that the deliberations on **64th IETE Foundation Day**, all over the centers would not only highlight the initiatives taken by IETE in the domain of **"data science"** but would also provide us with some concrete suggestions as to how we can accelerate our move in this domain and provide significant support in accomplishing this mission.

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