Big data value

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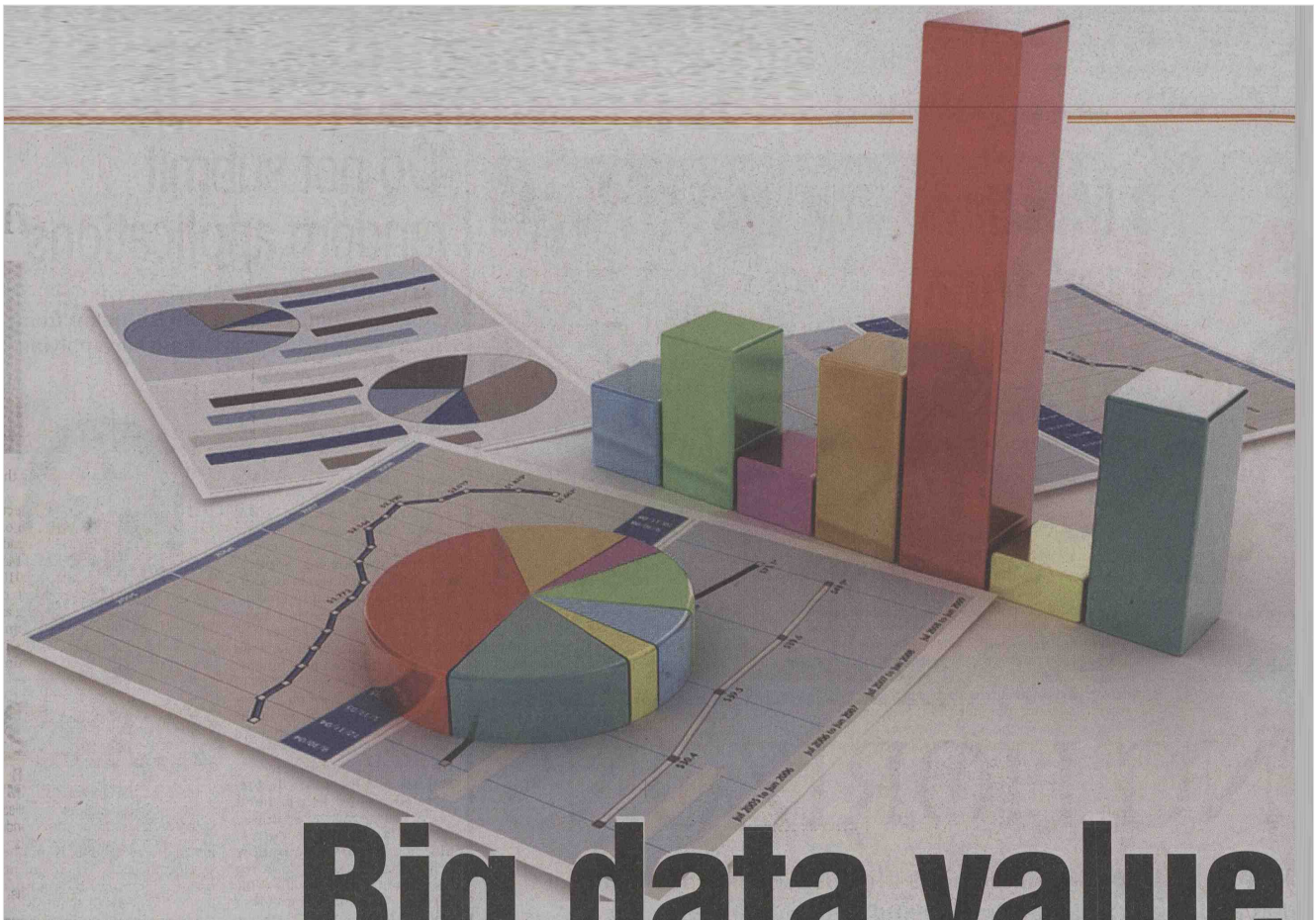

Big data value

Today's companies are giving a lot of emphasis to information available in figures online and offline to derive insights into making better, smarter, real time, fact-based decisions. This has fuelled the growth of analytics professionals well-versed in big data, says SHIVAN BHARGAVA

We live in a knowledge economy that is driven by information. Enormous amounts of information that is being generated around us every day out of weblogs, social media, posts, sensors, images, e-mails and video files, are simply waiting to be accessed and analysed. With the information explosion happening, companies are creating voluminous data, and are looking at ways in which they can manage and use it in a meaningful way. Hence big data holds the key to running successful business today and requires people who can support and drive the momentum of the big data and analytics industry.

Businesses have always wanted to derive insights from information in order to make better, smarter, real time, fact based decisions. It is this demand for depth of knowledge that has fuelled the growth of big data. Companies that invest in and successfully derive value from their data will have a distinct advantage over their competitors.

Big data can give an organisation insight in to consumer patterns, consumer behaviour and expectations, thus enabling them to launch or withdraw a product, improve upon their existing products and offerings, and align their products and services according to the market dynamics. Therefore, big data is going to become very big in the future.

According to International Data Corporation (IDC), the big data technology and services market will grow at a 26.4 per cent compound annual growth rate to $41.5 billion through 2018, or about six times the growth rate of the overall information technology market. Additionally, by 2020 IDC believes that line of business buyers will help drive analytics beyond its historical sweet spot of relational (performance management) to the double-digit growth rates of real-time intelligence and exploration/discovery of the unstructured worlds.

The NASSCOM has pegged the domestic Big Data market to be at $163 million, expected to double in size and reach $375 million by 2018. It has been indicated that the demand for analytics professionals will grow to 2.5 lakhs by 2022.

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What is worrisome is the paucity of professionals that fit the job profiles that the industry requires. The demand for professionals well versed with big data and analytics far outstrips the supply. Today, there are just not enough people who can fuel the growth of this emerging industry.

Within big data too, there are specific areas that will need a large number of experts. IDC, for instance, is predicting that security will be a killer app in the big data realm and that the analytics tool that keep data secure — predict security threats, detect them and create deterrence and prevention programmes — will flourish. To be able to use these tools, professionals will need to be trained in technologies such as machine learning, text mining and ontology modelling.

According to the research firm, analytics related to the Internet of Things (data generated through sensors, etc) as well as image, video and audio will be other areas of high growth. Rich media analytics in particular, IDC says, is expected to triple.

Today, this sector needs professionals who blend the role of data scientists as well as engineers — people well-versed in areas like data analytics, data warehousing, data management, interpretation and statistical analytics.

The industry requires a range of very high end, specialised skills around data processing and tools such as MapReduce, Hadoop, Cloudera, IBM Big Insights, Hortonworks and MapR. Skills in data mining or machine learning that, includes a thorough knowledge of technologies such as Mahout, are a must.

Professionals, who have worked on statistical analysis software like R, SPSS, SAS Weka and MATLAB, are in an advantageous position. Ever-green programming skills in technologies such as Java, Scala, Ruby, and C++ and knowledge of relational databases such as MySQL, MS SQL Server, Oracle and DB2, will also hold them in good stead.

One is also hearing about how data analytics jobs will require excellent communications skills. As organisations face challenges in understanding and embracing analytics, they will need experienced 'storytellers' — people who can use data to tell meaningful stories that strike a chord with their target audience. Professionals therefore, who are looking to build a career in the big data and analytics market, will need to equip themselves with these relevant abilities and expertise.

The rise of big data has created a mammoth opportunity, both for IT and Business Analytics professionals that can lead to satisfying and successful careers. Today big data is applicable in every sector from financial services to Humana resource. Hadoop, NoSQL, MongoDB are some the key technologies that will change the face of big data in future. The speed at which data was generated last year was almost 4.4 zettabytes hence datafication will impact our life in a big way and will bring about a novel trend in big data analytics.

People with a background in business management, engineering, mathematics, statistics, or economics and aspiring to be data scientists or analysts, will find these programs extremely useful.

The year 2016 is going to be the year for big data and analytics. The opportunity is huge and is beckoning professionals aspiring to be a part of the next big thing.

(The writer is group president, Skills and Careers Group, NIIT Ltd)