

Making Sense of Data

*The sheer scale of information now available to CEOs can be overwhelming. **Marc Teerlink**, Global Strategist at IBM, explains why properly trained data scientists can help provide some much needed clarity*



Big data has created big career opportunities for data scientists. It's been estimated that by 2018 the US alone could face a shortage of between 140,000 to 190,000 data scientists, as well as 1.5 million managers and analysts who possess the skills to analyse big data in order to make effective decisions.

In this data generation, it's not surprising that companies are eagerly seeking specialists who can turn data into insights. By some estimates we currently have more mobile devices than people in the world. And in our quest for greater convenience and connectivity, vast networks of digitally-connected devices are capturing and

tracking data on almost every facet of our lives, from our children's day at school, right through to improving the health and wellness of society's elder members.

While companies have more data than ever before, it's all meaningless without the ability and expertise to ▶

turn it into insights that help them to understand the business and its customers better. As data scientists become increasingly important for identifying the valuable information, it's critical that companies create cultures that can accommodate this shift.

Not long ago, in-house data scientists were statisticians hired specifically to measure financial risks or project future sales. They were given very narrow data sets to work with and were told what to find.

Today, successful data scientists have to draw unexpected connections in unusual places. It's as much an art as it is a science. That's why, if companies are to expand and maintain their competitive advantage they need to foster their analytical talent. This approach pays off too, as companies successfully capitalising on big data, for example, are 2.2 times more likely to have formal career paths in place for analytics employees, according to a recent IBM [study](#).

Yet, finding and retaining the data scientists who can garner meaning from the growing volume of data generated every day is no easy task. They are a rare and elusive breed with a unique, wide-ranging blend of talents, including an understanding of business needs and the statistical methods and tools to deploy data. Beyond these skills, they also need to be able to clearly communicate their findings to management.

The academic world has moved swiftly to help meet the growing demand for this position. In the US, more universities have rolled out advanced degrees in data mining and analytics. In Europe, the increasing demand for data

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scientists has spurred the introduction of training programmes across the continent. Still in their earlier stages, the Science to Data Science workshop in London, and the Data Science Retreat in Berlin, provide classes and mentorships to help develop a pipeline of skilled data scientists to meet the demand of the market.

However, data scientists can't be plucked out of school and given free rein with an organisation's most prized assets. They lack the business experience to properly monetise a corporation's data.

On the flipside, seasoned executives with a basic understanding of statistics but no hard data science experience can't adequately fill the role either. Businesses in immediate need of analytical talent should ideally pair up business generalists with recent graduates and train them together – ultimately developing data scientists from existing resources.

We are only at the beginning of this journey. Data scientists need to be

nurtured and be placed into an environment that will benefit from their unique skills. Businesses must keep data scientists stimulated and challenged, while some companies might need to rethink their organisation from the top-down, including the appointment of a Chief Data Officer.

As the title implies, this newest member of the C-suite will be the enterprise's 'champion of data', working closely with the business leaders, as well as IT. By next year, 50 per cent of Fortune 500 companies will employ a CDO, according to research by an executive search firm.

Winning in the era of big data is clearly no easy task, but the companies that can harness and cultivate data scientists to meet their needs will certainly have a competitive edge. ■

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