Research & Knowledge

Diving into Data Analytics @ Solvay

BY **MARTINE GEORGE**

An avalanche of data

Today, most of our daily activities - a banking transaction, visiting a website, a phone call, purchases at the supermarket, etc. - leave traces in the form of data. In 2016, 2.5 Exabytes (one billion Gigabytes!) of data have been produced every day! Faced with this avalanche of data, the challenge now is **to transform "raw" data into relevant and actionable information to create value for business and society**.

A new way of doing business

Indeed, some observers refer to data as the **new oil of the 21st century**. Pioneering companies such as Amazon, Google, Capital one and Netflix have long recognized that potential and have built **a real competitive advantage around data-based technologies**. The economic model of these organizations is based, among other things, on the implementation of a high-performance **Business Analytics activity** or the **analysis of data for business purposes**. But to implement these activities, one must have analytical skills and adapt the development of the organization as a whole.


Analytics Professional, a career for the future

The **Analytics Professional** is a consultant or an employee within an organization that **excels in the art of analyzing and valuing data**. His/her job is to discover **hidden trends, unknown correlations** and other useful information in large volumes of data in order **to improve the decision-making process** and commercial and operational action plans. The job of an analytics professional is rather up-and-coming and the projections of skill needs in this area are promising. In addition to these expert roles, recent management consulting surveys have shown the need for more

stakeholders of the analytics value chain in companies; **more data fluent people** who understand the potential of analytics; and the ability to translate business questions into data analytics thinking to explain to decision-makers how analytics could bring value to their organizations.

The leader of the 21st century? Half-Manager, Half-Engineer?
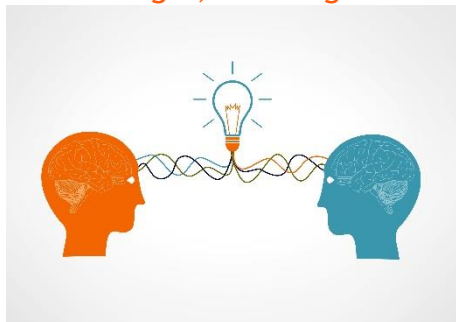
But why are these skills so sought after? Since it is important to analyze large databases, it is obviously necessary to have advanced computer science (database, data management, coding,…) and statistical and machine learning skills. But the responsibilities of **Analytics Professionals do not end there**. In order to be able to implement the identified solutions, they must

understand the business and organizational challenges of the company and above all, be able **to communicate these solutions to the different stakeholders**. Business Analytics projects are typically **transversal**, combining IT, marketing, finance and operations. It is, therefore, necessary to develop **four areas of expertise**: IT, analytics through statistics and machine learning, business, and communication. The analytics professional, called to be the leader of tomorrow, will be **a blended profile** of business manager and data and quantitative analyst.

Solvay has launched new learning opportunities on Business Analytics, Data Science & Big Data

Armed with this conviction, SBS-EM has **launched over the past 2 years several**

initiatives in Business Analytics in the curriculum of Master and Advanced Master Programs. Indeed, there is now a course of Business Analytics in Master in Business Engineering and in Business Economics. There are courses of Data Science for Business in Advanced Masters in Innovation and in Marketing. The QTEM network is also another important path for some students to deepen their knowledge of analytics.

All of these new perspectives have triggered the curiosity of many students. Indeed, some of them, eager to learn more about these topics, have decided **to pursue a master's thesis** or to apply for a credited internship in analytics. Today there are so many opportunities not only in big **corporations** (ING, SAS Institute, McKinsey Solutions, etc.) but also in **SME's** (Real Impact Analytics, Swan Insights, etc.) in different **functional roles** (marketing, risk, fraud, internet of things, etc.) and different **industries** (banking, energy, telcos, software engineering, etc.). The first experiences of our students have been **enlightening** and some of them have even **found that first job immediately** after their internship or thesis. We are strongly convinced that it is just the start of a new area of opportunities and learnings for our future grads.

IF THESE LINES HAVE TRIGGERED A NEW VOCATION OR SOME INTEREST, CONTACT MARTINE GEORGE

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