MAKING DATA AVAILABLE AND ACCESSIBLE TO THE ENTIRE ORGANIZATION
— THE ROLE OF AN ANALYTICS ENGINEER

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A growing number of organizations are seeing the value of data-driven decision-making and investing in solutions to use data to strengthen their market position. However, as they put the infrastructure in place, create modern data teams, and train employees, they often notice that something is missing: someone who speaks both the language of the business and technology. Someone who can reliably make data available to the organization, for example, for 'self-service analytics.' In today's data teams, we call this missing link the Analytics Engineer. This article looks at the importance of this role and provides more details on what this function entails.

Data is increasingly critical - or even a prerequisite - for any innovative company, from startup to corporate, to thrive. But, to make the most out of data, you need to know how to create a good data product, what skills the teams need to possess, and, last but not least, you'll need a modern data landscape.

Data democratization - innovative technology changes the playing field

Until recently, the only department concerned with data was IT. Other departments, such as finance and marketing, did use insights to make decisions, but they always needed IT to help retrieve them. Two trends are changing this process: data democratization and the accessibility of (new) cloud tools.

Data democratization aims to make data available to more than just data experts. Moreover, it should be able to be used by anyone to make data-driven decisions at any time. Data democratization is a significant trend, driving data to the organization's core. Furthermore, it is becoming increasingly easy to move traditional data warehouses to the cloud and enable people without an IT or data background to access data with innovative tools.

With a larger group of people increasingly using and relying on data to make decisions, it is more important than ever to make this data available to organizations quickly, correctly, and in the proper format.

However, the challenge many organizations face is that they still operate in silos. Consequently, combining insights can lead to chaos. For example, if the marketing department sees that, based on trends, the demand for a product is on the decline, but the sales team still tries to sell it. In this case, incorrect information leads to the wrong decisions.

"The right data, at the right time, in the right place"

This requires consolidating all available data sources within an organization and having data analysts, data engineers, or data scientists with the experience to facilitate a process from A to Z. But, is this enough? To lead as a "data-driven" organization, eliminating all potential bottlenecks that will slow you down is essential.

Bottlenecks in the data process

The ability to store data in the cloud and have easy access to it through a wide range of new tooling leads to all departments wanting access to data to optimize products and/or services. But, for data to be of value, teams need a data engineer. Data engineers are scarce, and the amount of work that will come their way because of 'data democratization' could make them a significant bottleneck in the process.

Fortunately, the market has responded by launching new tools such as Fivetran and dbt, which enable data analysts to extract raw data from different systems, load, transform, and process it into usable information.

Although this somewhat helps the data engineer, the tools alone are not enough to solve the real problem. Especially since the data analyst now has an extra (data processing) task to complete while he or she should be focusing on business value.

To properly organize this process from front to back and ensure that everyone can focus entirely on his or her tasks, having an Analytics Engineer is imperative to any team.

The missing link between business and IT

The Analytics Engineer forms the link between the technical side (data engineering, data infrastructure) and the business side (data analysts) and ensures that everyone can access and use data safely and reliably.

An Analytics Engineer is at the center of the organization. He or she knows the core business, understands the tools and processes, maintains good relationships with end-users, and is skilled at realizing pragmatic solutions.

The responsibilities of an Analytics Engineer:
- Applies software engineering best practices, such as version control and CI/CD when unlocking data.
- Continuously ensures the accuracy, reliability, security, and speed of analytics workflows.
- Is concerned with data quality and availability rather than roles and processes.
- Familiarizes data analysts with software engineering principles for better collaboration.

- Helps data engineers better understand what to build, and data analysts better understand what to ask.
- Turns end-users into data owners through knowledge sharing, training, and shared responsibility.

A Modern Data Team

The Analytics Engineer is not alone. A team in which everyone has a specific function is needed to retrieve value from data. Therefore, it is helpful to define roles so that everyone has a straightforward task that matches their expertise. The most critical roles in a modern data team are:

- Data Engineer: works on the data infrastructure side to make raw data available and accessible.
- Analytics Engineer: builds and tests workflows to generate reliable data sets.
- Data Analyst: performs exploratory analysis and transforms data into reports and dashboards that can be understood and used directly by the business.
- Data Scientist: uses statistics and Machine Learning to improve products and services through experimentation.

Accelerate your data democratization with GoDataDriven

After reading this whitepaper, do you want to take the next steps to prepare your organization for a data-driven future? Since 2009, GoDataDriven has enabled organizations to turn disruptive innovation into growth by becoming more data-driven and leading the way with smarter products, services, and processes. Because our consultants operate like the ideal modern data team, we have the expertise to fill all the required roles or set up your own team. We can also (help you) build a modern data landscape with a data platform and the right tools. For more information, please feel free to contact us.

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Let's discuss the next step

Are you interested in how we can help your organization? Contact our Sales Manager Tim Waijers if you want to know more. He'll be happy to help you!

in linkedin.com/in/twaijers/
✉ timwaijers@godatadriven.com