Key Roles for a Successful Analytics Project

In recent years, substantial attention has been placed on the emerging role of the data scientist. In October2012, Harvard Business Review featured an article titled "Data Scientist: The trending Job of the 21st Century", in which experts DJ Patil and Tom Davenport described the new role and how to find and hire data Scientists. More and more conferences are held annually focusing on innovation in the areas of Data Science and topics dealing with Big Data. Despite this strong focus on the emerging role of the data scientist specifically, there are actually seven key roles that need to be fulfilled for a high-functioning data science team to execute analytic projects successfully. Figure below depicts the various roles and key stakeholders of an analytics project. Each plays a critical part in a successful analytics project. Although seven roles are listed, fewer or more people can accomplish the work depending on the scope of the project, the organizational structure, and the skills of the participants.

For example, on a small, versatile team, these seven roles may be fulfilled by only 3 people, but a very large project may require 20 or more people. The seven roles follow.

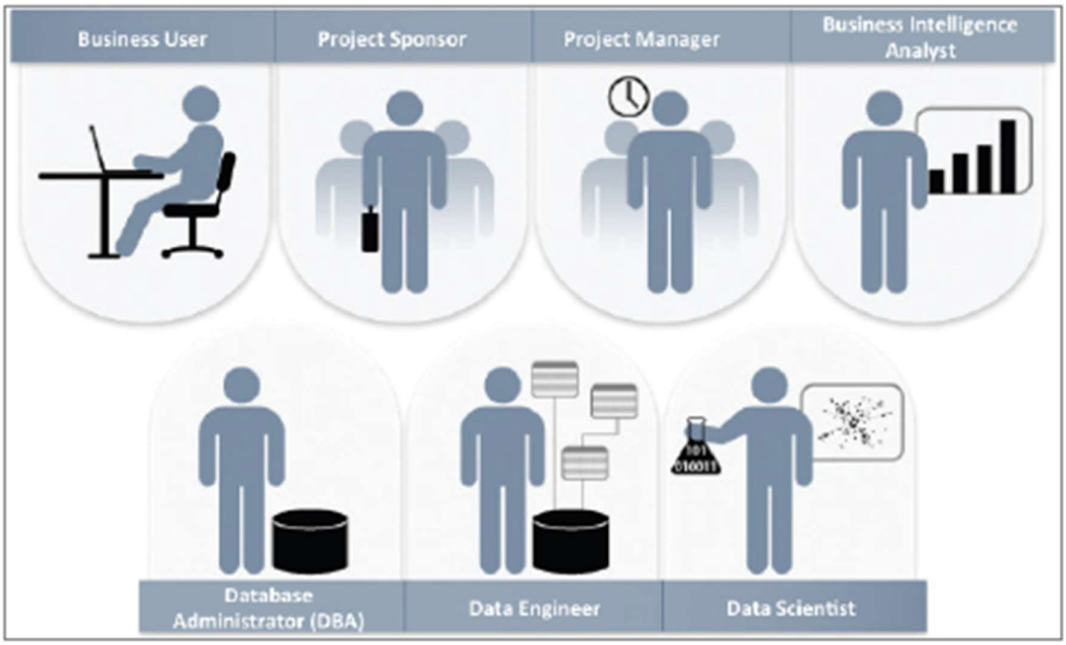

FIGURE *Key roles for a successful analytics project*

- Business User: Someone who understands the domain area and usually benefits from the results. This person can consult and advise the project team on the context of the project, the value of the results, and how the outputs will be operationalized. Usually a business analyst, line manager, or deep subject matter expert in the project domain fulfills this role.

- Project Sponsor: Responsible for the genesis of the project. Provides the impetus and requirements for the project and defines the core business problem. Generally provides the funding and gauges the degree of value from the final outputs of the working team. This person sets the priorities for the project and clarifies the desired outputs.

- Project Manager: Ensures that key milestones and objectives are met on time and at the expected quality.

- Business Intelligence Analyst: Provides business domain expertise based on a deep understanding of the data, key performance indicators (KPIs), key metrics, and business intelligence from a reporting perspective. Business Intelligence Analysts generally create dashboards and reports and have knowledge of the data feeds and sources.

- Database Administrator (DBA): Provisions and configures the database environment to support the analytics needs of the working team. These responsibilities may include providing access to key databases or tables and ensuring the appropriate security levels are in place related to the data repositories.

- Data Engineer: Leverages deep technical skills to assist with tuning SQL queries for data management and data extraction, and provides support for data ingestion into the analytic sandbox. Whereas the DBA sets up and configures the databases to be used, the data engineer executes the actual data extractions and performs substantial data manipulation to facilitate the analytics. The data engineer works closely with the data scientist to help shape data in the right ways for analyses.

- Data Scientist: Provides subject matter expertise for analytical techniques, data modelling, and applying valid analytical techniques to given business problems. Ensures overall analytics objectives are met. Designs and executes analytical methods and approaches with the data available to the project. Although most of these roles are not new, the last two roles—data engineer and data scientist—have become popular and in high demand as interest in Big Data has grown.