

## Building a Culture of Data Literacy at UOB

*by David Tan*

Data discovery is a real-time, ad hoc analysis of a specific problem. And contrary to popular belief, it is not complex. In fact, all of us do this every day.

Let me explain data discovery using a simple example from everyday life. Think of the way you buy shampoo. You have a brand or two in mind. You go online and check out the prices and reviews. You may then visit the supermarket as part of further data analysis. You search for specials and coupons and then you see which online retailer can deliver it for less.

Through data discovery you are able to assess the pros and cons of price and convenience before placing your order online or taking a trip to the store to buy your shampoo.

Now imagine that you are doing this with your company's sales data. That's data discovery in a nutshell.

### **Data-Driven Insights at UOB**

At UOB, data discovery and analytics are key focuses. As the head of [United Overseas Bank's Big Data Analytics Centre](#), my team supports advanced analytics for UOB at an enterprise-wide level, in Singapore and globally. Our work is based on three pillars: data science, data discovery and data visualization, and analytic strategy.

Our mission is to implement the company's EDAG programme, which stands for Enterprise Data Architecture and Governance. UOB's EDAG programme enables us to put data analytics at the core of our organisation and across the various functions, businesses, and markets. Our ultimate goals are to use the insights harnessed from data analytics to enhance the way in which we serve our customers and to drive the performance of our businesses.

To achieve this we have a two-pronged strategy: renewing of our data analytics capability through the implementation of a new enterprise platform and providing the training needed to not only upskill but also create a culture driven by data analytics.

As part of our journey, one of the first things we looked at under the EDAG programme was changing the way UOB looked at data discovery. Traditionally, data discovery tends to be a per-project process that was used for regular reporting purposes. Extracting data for these reports was often manual and time consuming. The reports created were also often one-dimensional and not in real-time as there were limitations when analysing historical data on Excel files.

To make data discovery more accessible, insightful, and relevant to business real-time needs, we partnered Qlik to create a dashboard that enables our colleagues to have access to the data at any time and to be able to glean valuable and actionable insights within minutes.

### **Self-service data analytics tools help users learn proper data governance.**

We also worked with Qlik to customise the dashboard for UOB's needs. Given that the dashboard would be used not only by data scientists but also new users, it was important to ensure the solution was instinctive and easy to navigate without compromising on capabilities. Qlik's interface is designed for everyday users and its data visualisation tools also help to guide the user to gain deeper insights.

However, meaningful analysis of data stems from good data quality. As such, we also created an enterprise-wide training programme that went beyond data analytics into topics such as data literacy and data governance.

### **From Proof of Concept to an Enterprise-Wide Transformation**

At UOB, we took a measured approach to driving a data-centric culture across the organisation. Through proof-of-concepts (POCs) with different business units, we introduced the idea of data discovery as a more insightful way of looking at numbers and statistics. These POCs enabled us to demonstrate the flexibility of data discovery and the ability to use data discovery and analytics to drive real-time business decisions.

To complement our POCs, we embarked on an enterprise-wide data literacy campaign. At UOB's Big Data Analytics Centre, we hold training sessions for our internal business partners who may not come from a data analytics background so they can learn more on how data discovery can enhance the way they serve customers or to make their operational processes more efficient. The aim of these training sessions is to leave participants with a solid grounding in self-service data discovery and to open their thinking to new ways of exploring data and doing business.

### **Data literacy opens up new ways of doing business.**

To ensure that the training is relevant to the participants, we use historical data sets from their businesses to reflect the types of data they would handle in their day-to-day work. Often, when people learn new analytics tools, they are given simplified data sets that have little or nothing to do with their main business. Using internal data sets has accelerated the learning process for our colleagues.

Qlik has also provided online courses to guide UOB employees through the dashboard's advanced features and on how they can optimise the service to glean deeper insights behind the data.

### **From Big Data to Big Ideas**

Our goal from the start was self-sufficiency and our educational outreach has paid off. Over the last two years, data literacy has gone from a vague consideration to an integral part of our operations. EDAG has gone from a pilot project to an enterprise-wide initiative.

We trained an initial batch of business users who then went on to train their internal partners. I'm pleased to say every business unit has embarked on a data discovery journey. We have learned from our experiences, and have adapted our approach to the data requirements and internal structures of our various departments.

By the end of Aug 2018, we have trained over 350 employees in our head office in Singapore. Over the next year, we'll be expanding training to our international subsidiaries such as those in ASEAN, where we have a strong network.

### **Big data = even bigger ideas.**

The next step for my team is to leverage artificial intelligence and machine learning to provide better service for our internal and external customers. Future proofs of concept will focus on chatbots and other services that use big data to help us streamline and improve our processes. Using Qlik has helped us bring data to the forefront at UOB. Data literacy and data discovery are now top of mind here. Everyone here now understands that big data lead to even bigger ideas.