Making data relevant to business

Modern analytics can increase the efficiency of business learning through systematic experimentation

WHEN Singapore Management University (SMU) undergraduates start their current academic year in August, they could choose a new subject as their second major. This prepares them for widely sought-after jobs and makes them more marketable. They can pick up skills in processing, managing, analysing and making sense of large amounts of data, in addition to pursuing their bachelor’s in one of the core SMU disciplines of business, accounting, economics, social sciences and information systems.

Companies are paying attention not just to the data coming their way, but also to the possibilities that emerge from educational and research project collaborations, as SMU is widely regarded as standing at the cutting edge of research efforts in the area of analytics for business, consumer and social insights.

For example, through their Living Analytics Research Centre, a five-year research partnership with Carnegie Mellon University, they are working on an initiative called LiveLabs, which operates as a start-up within SMU’s School of the Arts,牙, Media & Design. The centre provides a space for prototyping analytics applications and services, and is developing a range of analytics tools and services for a variety of industries.

The data explosion

In the last 10 years, technological developments combined with social trends such as the growth of user-generated content, smartphone usage, and widespread participation in online social networks have created an explosion of data for business. Companies now have a deeper understanding of customers and competition.

Big Data constitutes the massive increase in the scale and diversification of data generated, as well as the data collected and analysed. Data is now being generated and collected in huge volumes, at high speeds, and in all kinds of varieties — not only numbers, but also text, emails, SMS messages and more. This has increased the need to efficiently collect and process data on a per unit basis, companies are finding they need more and more people to work in the ‘data value chain’ — organizing and managing data, analysing data, interpreting outputs, and communicating conclusions to an even expanding number of people inside and outside the organization. As a result, business spending and investments related to Analytics are increasing rapidly even with the corresponding reduction in per unit cost of doing the type of work. The approach to analytics is getting more embedded into the everyday transaction processing and business practices. The ability to collect, store, maintain, mine, aggregate, compile, procure, operations and supply chain, and sales and marketing. The number of people involved in creating analytics output and the number of people using these output have vastly expanded. Analytics has now gone mainstream,” said Prof Michael Miller, founding dean of SMU’s School of Information Systems (SIS) and the university’s vice president of research.

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Early on, students in this Living Analytics major, which is designed and managed by SIS and SMU for the first time in the world, are being exposed to industry training on big data and analytics. The students who have been trained as data engineers, data scientists, or data engineers, are now working on an initiative called LiveLabs, which operates as a start-up within SMU’s School of the Arts, Media & Design. The centre provides a space for prototyping analytics applications and services, and is developing a range of analytics tools and services for a variety of industries.

Under the Analytics 2nd major, these are five different tracks marketing analytics, operational analytics, accounting, urban and regional analytics, and technical and applied analytics. Each of these tracks is specially designed to closely align with job opportunities and professional careers in a variety of industries.

For example, those trained in operational analytics will focus on operations, logistics, project management, and behavioural analytics. Those trained in marketing analytics will focus on research, marketing, and sales and marketing. Those trained in accounting analytics will focus on financial services, and those trained in technical and applied analytics will focus on software and data science.

In addition, the Big Four accounting firms have also hired large numbers of SIS undergraduates for consulting and advisory work that very often involves analytics. In addition, some of the students are doing a train-on-program in consulting and advisory work that very often involves analytics. As a result, we have partnered with our School of Accountancy to create the Analytics Track in our new Analytics 2nd major, as stated by Prof Miller.

Professional training

In addition to preparing undergraduates, there are currently 300 postgraduate programs in SMU’s School of Business (SMB) that are well-established over the last five years. The MBA program is now the world’s largest MBA program, with over 1,500 students enrolled in the program. In addition, there have been 2,000 students enrolled in the MBA program, with over 1,500 students enrolled in the program.

The Mays program has two tracks: financial services, for those taking on more complex roles, who may integrate technology with operations, process optimization and innovation initiatives across the firm. Even when students do the core 15 courses, the software engineering, data management, or enterprise resource planning, they have to apply business thinking to their own way of designing and creating software solutions, and these software applications often involve analytics-related capabilities. Even when students do the core 15 courses, the software engineering, data management, or enterprise resource planning, they have to apply business thinking to their own way of designing and creating software solutions, and these software applications often involve analytics-related capabilities.