Big Data & Analytics
Innovation Summit
August 3 & 4 | Shenzhen

innovation
enterprise

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BIG DATA & ANALYTICS INNOVATION SUMMIT SHENZHEN

Key Takeaways from the Big Data & Analytics Innovation Summit Shenzhen

- Fung Global Retail & Technology attended the Big Data & Analytics Innovation Summit held on August 3–4 in Shenzhen, China.

- Companies can use big data analytics—which are administered on data sets that are too large and complex for traditional data-processing methods to handle—to increase their understanding of underlying business trends and improve business decision making.

- Data analytics can improve loyalty program marketing by enabling hyper-personalization and help companies better estimate product delivery times.

- Implementing big data presents challenges, including ensuring security, data privacy and the quality of input data.

The speakers at the Big Data & Analytics Innovation Summit focused on the benefits and challenges relating to the use and application of big data analytics:

- Big data analytics can be used to drive loyalty program marketing benefits.
- Big data helps match supply and demand more accurately for sharing economy companies.
- Security and data privacy are the primary concerns regarding the storage and processing of personal records.
- Big data analysis needs to address the underlying business causes in observed data in order to be effective.

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The only professions that are here to stay are knowledge workers.

Applications of Big Data

1. Loyalty program marketing benefits from hyper-personalization, which is driven by big data analytics

Bertrand Chen, from Asia Miles, shared his company's experience in creating personalized loyalty programs. Since its founding in 1999, the company has accumulated 16 years of travel and mileage redemption data on its 8 million members. Initially, the company made mistakes in sending marketing emails that ignored members' data. However, Asia Miles learned from its mistakes and now uses members' recent travel history to customize hotel offers that match their itineraries. The company also used responses from a customer survey to provide personalized offers for members. These personalization efforts have received very positive responses from Asia Miles members.

2. Big data helps optimize delivery

Howard Kwong, CTO of Delivery Republic, shared his insights on big data analytics in the context of the sharing economy and discussed some relevant cases in the food delivery business in Hong Kong. Kwong pointed out that the goal of the sharing economy is to match supply with demand, and then fulfill that demand in real time. On-demand services such as Uber, Postmates, OpenTable and Instacart have gained popularity, particularly among millennials, who demand that what they want be available to them immediately. "Because [the] sharing economy is the new economy, big data becomes necessary for on-demand businesses to discover and capture purchase intent," Kwong said.

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– Howard Kwong, CTO of Delivery Republic.

Delivery Republic has used big data to help improve the accuracy of its delivery arrival time estimates; the company has added real-time considerations to the traditional formula of delivery estimation: delivery time = restaurant preparation time + route time to pick up + route time to deliver. To improve the accuracy of food preparation estimates, Delivery Republic's system added information such as size of order and time of day. To better estimate route time, its

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system accessed real-time traffic data, which significantly improved the precision of arrival time estimates. Kwong added that continuous improvement of the estimates comes from further layering of local weather and relevant events to the data series.

Challenges to the Application of Big Data

1. Security and data privacy are the primary concerns regarding the storage and processing of personal records. Data that are accessible cannot necessarily be distributed ethically, so data owners should ethically practice data collection, analysis and publication.

The Octopus card, the contactless payment method that is ubiquitous in Hong Kong, presents a notable case. Police have used Octopus card data to track criminals, tracing personal information and transaction records stored on the cards. But smart card data have also been used to the detriment of cardholders. In 2010, Octopus Holdings sold a database containing customer information on more than 1 million users to business partners, sparking much controversy and leading to the resignation of the CEO. This breach of confidentiality was a high-profile example of the need for companies to protect data privacy and practice ethical data maintenance.

2. Big Data Analysis Needs to Address Underlying Business Causes

Big data analysis should be used to address the underlying causes and business drivers (e.g., sales), not proxies. Further, decision making using big data is evidence based, meaning that the result is only as good as the primary data and assumptions. Thus, companies must have robust processes that ensure the integrity of input data as well as the validity of base assumptions. What matters in big data is real business results (e.g., sales), not proxies.

Case Study: *Facebook*

Facebook faced the difficulty of applying big data to analyze the probability of conversion. On average, 22% of incremental revenue generated by Facebook ads was not represented by models measuring the number of clicks within a specified period. Clearly, these conversion models based solely on click rate were not a good-enough proxy for revenue. An analysis found that multi-attribution offered more realistic assessments of drivers of business results.

Bryan Wang, Head of Marketing Science for Facebook Greater China, stressed the importance of directly defining and measuring business results, rather than just using proxies. He pointed out that when marketers measure traffic as a proxy for sales, it can lead to false conclusions, for example, clicks do not always translate into sales. Similarly, data from comScore show no correlation between website traffic and sales conversion.

Conclusion

The conference was a great opportunity to learn more about how big data will shape the future of many industries including marketing and retail. The applications of big data analytics are numerous but common challenges such as privacy, data security, and metrics identification remain to be addressed.

About the Big Data & Analytics Innovation Summit

Fung Global Retail & Technology attended the Big Data & Analytics Innovation Summit on August 3–4 in Shenzhen, China. Hosted by business media company Innovation Enterprise, the summit is an annual opportunity for data scientists, digital marketers and industry experts to discuss recent data analytics trends in Asia. Speakers represented industry-leading companies such as Baidu, Facebook, EF Education First, Asia Miles and Qihoo 360. The conference focused on four themes: driving growth and transformation through big data platforms, building analytics in a startup, using predictive analytics in the mobile Internet, and changing the innovation game with data analytics.

Using Big Data to Make Better—and More Informed—Business Decisions

Companies can use big data to increase their understanding of underlying business trends in order to improve their business decision making. Big data analytics are administered on data sets that are so large and complex that they render traditional data-processing methods ineffective, and these techniques have changed the way we think about the process of analyzing data.

Big data is defined by four characteristics, known as the *4 Vs*:

1. *Volume*, or the amount of data that is generated and stored
2. *Velocity*, or the speed at which data is processed to generate insights
3. *Variety*, or the diversity of data
4. *Veracity*, or the accuracy and quality of data, which strongly affects the results of the analysis

Recent Big Data Trends

The growing popularity of social media, websites and search engines has made a large amount of data available for analysis. For example, Facebook shares 30 billion pieces of content from its 1.17 billion monthly users and Google generates 40,000 search queries per second.

Bertrand Chen, Lead Data Scientist at Asia Miles, predicted that many positions involved in routine manual and cognitive work will be replaced by computers and robots. Some manual workers, such as craftsmen, will lose their jobs to automation. The only professions that are here to stay are knowledge workers, particularly when it relates to data analytics.

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