

Unlocking the value of data

KPMG works alongside their clients to help them move up the analytics maturity scale



DR. STEPHEN HASTINGS
PARTNER - KPMG AUCKLAND
STEPHENHASTINGS@KPMG.CO.NZ

HOW MUCH DATA DO YOU NEED?

It's challenging for organisations to be truly data-driven and insight-led, and embed this into their DNA. Leaders are expected to make difficult decisions at pace, amid an explosion of data. Having lots of data may sound like a good thing but the more data and the more kinds of data you have, the harder it can be to manage, analyse, gain insight from and act on.

Trying to make sense of all that data has fuelled the growth of algorithm development - particularly for machine learning, deep learning, and natural language processing. Other technological advancements are supporting this, such as open source technologies like Apache Hadoop and Spark, in-memory processing, the rise of cloud computing and the use of processing chips such as GPUs and TPUs - which can execute complex machine learning algorithms on large datasets.

For our clients, common questions are:

Wanting to know how they can capitalise on their data assets for competitive advantage.

Where they sit on the analytics maturity scale, and how to move forward.

Organisations also want to understand what data is available to them, its quality, how integrated it is, and how it can be enriched through third party sources.

GETTING MORE FROM YOUR DATA

In our experience, quality data combined with advanced analytics and deep domain knowledge leads to great client outcomes. It all starts with key business questions which typically fall into a few key categories: improving customer experience, managing risk, cost efficiency and growth/profitability.

We work with clients to develop hypotheses on the key issues, opportunities and risks, then test these using a scientific, data-driven approach. Good quality, rich data is crucial - it provides colour and insight, and it's the fundamental building block for any down-stream analytics or modelling. Unlocking the value of data can be done by applying information management principles and approaches, and using both internal and strategic external data. This data can take many forms; behavioural, interaction, demographic, attitudinal and environmental. When vast amounts of structured and unstructured data are ingested, and advanced analytics applied in an automated process, decision making becomes faster, cheaper and smarter.

LIGHTHOUSE - HELPING YOU COMPETE

KPMG has recently set up its centre of excellence for data, analytics, automation and artificial intelligence (AI) - Lighthouse - in response to our clients wanting to get more from their data assets and to compete on analytics. Inside the Lighthouse we have teams of data engineers, business intelligence specialists and data scientists that use cutting edge techniques to harvest actionable insights.

With our Advanced Data Management Toolkit, we help our clients manage, integrate, clean, organise, enrich, transform, visualise and report on data. This allows for more accurate, timely information that helps improve decision-making.

Natural language processing is commonly used to analyse language and speech to support a range of different applications; from the algorithms behind chatbots and virtual assistants, to text mining complaints for key topics and performing root-cause-analysis.

We also use machine learning, forecasting and predictive models applied to historical data, to help clients understand what is likely to happen in the future. Common examples are predicting which customers are likely to leave, what the next best product or service is to offer, and where fraud/credit risk may occur.

CLOUD AND AI - WHAT DOES IT MEAN FOR YOU?

Analytics in the cloud is a rapidly growing area. Multiple algorithms can be tested (and collaborated on) to find the optimal model for a given use, with most platforms offering templates for common business scenarios. Large datasets can be crunched faster on the cloud technologies from all the major providers. Cloud technologies are also scalable and cost effective with usage-based compute and storage resources.

AI is also attracting a lot of hype. AI allows machines to sense, discover, comprehend, act and learn. This is the future, it's reinventing how businesses operate, compete and thrive. This AI ecosystem enhances, automates and augments decisions that allow our clients to meet their business objectives. However, humans must be kept in the loop to train, test and tune models, to ensure they are free of bias and that they behave as expected, without untoward or unexpected consequences.

With the rise of AI, it's easy to wonder about the place of humans in the future of business. We believe the future is in "augmented intelligence" - the combination of human intuition, intellect and creativity, combined with information, machines and algorithms. Increasingly we will see the combination of humans and machines working in unison giving rise to the greatest success.

For more information go to kpmg.com/nz/Lighthouse



The framework KPMG utilises for their clients

