

## Al developments to redefine the way we do business

Consider a personal assistant bot, a machine or application that you could ask to organise a meeting or arrange bookings just as you would a live, human assistant. As artificial intelligence (AI) becomes more prevalent and approaches advance, such a scenario is becoming increasingly realistic.



This is according to DataProphet managing director, Frans Cronje who highlights that there will be a number of exciting developments and new approaches to AI in the short- and long-term future as the application matures and continues being explored.

## Machine learning extends Al

"A subset of AI, machine learning has driven the majority of advances in recent years, many of which are improvements on or augmentations to existing processes."

Cronje explains that there are multiple cases where improved machine learning models have extended the capability of AI. These include computer vision for self-driving cars, voice-to-text capabilities for virtual agents like Siri and speech-to-speech translation for applications like Skype.

He says, "Outside of businesses that are built around their data - like Google and Amazon - most businesses have only just begun to apply or investigate machine learning. They are, however, quick to realise that these models usually outperform traditional methods by around 10% to 30%. This is not surprising given that traditional methods - like linear regression for predictive work and statistical testing for descriptive work - are constrained by assumptions and need to remain highly interpretable."

"Because machines are more accurate than humans in identifying patterns in data, many businesses are also considering how they can elevate existing processes through machine learning. For example, using it to improve customer service by flagging urgent queries for attention."

So, what is the he next step for AI and machine learning? Cronje notes that in the short-term it will be processes that stand alone such as 'chat bots' - robots that have a good understanding of context and would be able to interact with a customer as a sales or support agent would. "We have already seen some advances in this space if you consider services such as Siri or Cortana," he says.

The introduction of these 'chat bots' by companies will allow them to interact with customers through every day channels like WhatsApp rather than directing people to their website or call centre.

## **Data maintenance**

According to Cronje, an important consideration in this regard is the need for businesses to focus on maintaining their past data instead of just focusing on current data. "It is surprising how many companies have overwritten their data so that it can only provide the current view."

"If fields in the data are overwritten, then there is no way to recover the past experience from the data and this data is therefore not helpful for predicting the future."

Long-term, Cronje says, "There are many possibilities to improve business operations. With the ability to process natural language and interpret context, the likelihood of technology such as a personal assistant bot is very high."

"From the consumer's perspective, there will also be a steady - but significant - improvement in the personalisation of interaction with businesses as machine learning techniques are improved and relevant data is increased," he adds.

DataProphet commercial director and co-founder, Daniel Schwartzkopff concludes that, "the major advances in the last few years are just the tip of the iceberg. There are so many possibilities given how such technology can revolutionise and redefine the way we do business."

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