9/4/2019

Unlocking Value of AI in Organisations

A Summary of SmuAI Discussion Panel 1

SMU AI

SMU ARTIFICIAL INTELLIGENCE CLUB

Beyond the hype, SMU Artificial Intelligence Club (SmuAI) sought to understand the challenges and opportunities of using AI in a real business context from leading Industry practitioners. Here are the key highlights of the panel discussion we organised:

What is Intelligence really?

Steven Miller, Vice Provost (Research) and Professor of Information Systems (Practice) at SMU, shared with the audience some "intelligence on intelligence". Artificial Intelligence refers to the study and engineering of computations that make it possible to perceive, reason, act, learn and adapt. In order to recreate the functions of the human brain, understanding what intelligence meant (as shown in figure 1) is crucial for us to engineer systems that could potentially encapsulate all of it.

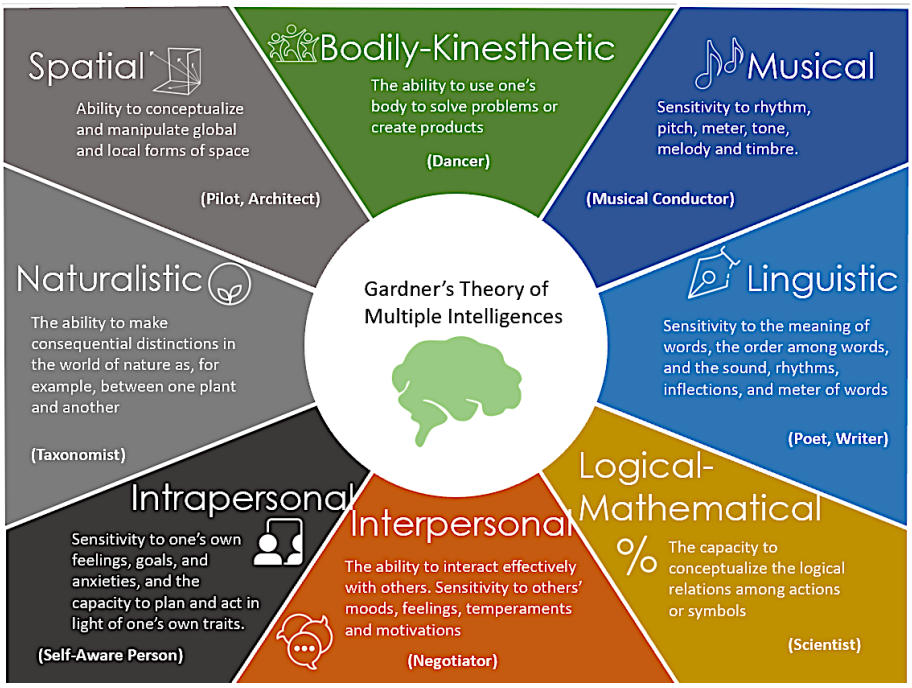

Figure 1. Source: Gardner, Steven Miller

Understanding Business Context is key to creating Relevant AI Solutions

Dr Corey Manders, Head of R&D at OneConnect Financial Technology, an associate company of China's Ping An Insurance Group, presented a number of advanced AI-enabled technologies that enable financial institutions to transform their business. Among these technologies, he shared that when it comes to cheque clearance, most banks need back office staff to painstakingly match signatures on the cheques against other documents. OneConnect's R&D team has developed its proprietary eSignature solution that verifies signatures quickly and removes the risk of human error and fraud.

On addressing the challenges to overhaul legacy systems faced by many financial institutions today, Dr Manders introduced OneConnect's advanced facial recognition technologies that are cost effective and easy to deploy. However, he cautioned that fitting out the technologies and not understanding the real business needs are usually the reason why it is difficult to get consensus to move forward with such technology solutions.

Charles Crouspeyre, Director at Accenture Applied Intelligence (ASEAN AI Lead) also added that beyond that, businesses need to consider the regulatory policies like data privacy laws and the willingness of customers to use facial recognition as a means of authentication. Therefore, AI enabled solutions should tackle existing pain points in order to deliver quick wins.

The Hidden Pains of using OCR

Crouspeyre, presented on how he and his team at Accenture were helping a client in the financial services industry to read and extract information from bank statements of all forms. The Optical Character Recognition technology (OCR) promises to make the current process up to 8 times more productive. The technology itself is not new, but customizing it to a specific, cryptic language is not as easy as it seems. An example cited was the difficulties of working with the Thai Language. From the onset, the team was plagued with several issues, one of which involves the lack of datasets containing documents in the Thai Language to train the model. But the more challenging issue was in identifying and separating each Thai character so that the model can recognize it. Due to the nature of how the language is written, the next letter is often joint to the previous letter, making it extremely difficult to isolate and identify. These issues highlight the potential constraints of localising a mature technology and should be taken into consideration when building a business case for the solution.

AI Initiatives must be driven by a Multidisciplinary Team

Contrary to popular belief, artificial intelligence initiatives and projects require more than just a team of data scientists focused on building amazing models. Business analysts, solution architects and software engineers are all required across the whole scope of the project. In a typical project (as shown in figure 2), it is usually broken down into 3 phases consisting of Data Acquisition and Understanding, Architecting and Modelling as well as Deployment. And throughout the engagement, team members from the various disciplines are crucial in ensuring that the project delivered meets the expectations of the various stakeholders.

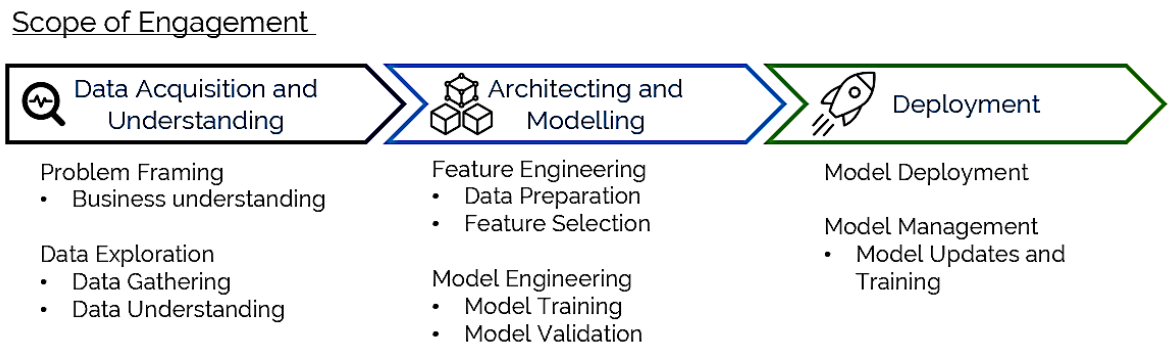

Figure 2. Source: Charles Crouspeyre

"Even when you are the world's Greatest Technologist," advised Prof. Miller, "you have to understand the business domain, the business setting, the cultural setting, the legal setting, the regulatory setting to know the things that people are going to use."

Written by: Sheldon Chin (4/9/2019)