Week 2 Reflection

**What have I learnt this week?**

This week the concept of modelling was introduced. It was clearly outlined how models are an abstraction of reality, and their main purpose is to aid thinkers and creators in their process of understanding a complex reality.

When discussed further, it was evident on how common modelling is in the real world. Mental models were explained as ‘informal’ mental representations on how things work and the way humans build models in their brains to simplify complex chunks of information. The purpose of modelling was also explored in detail, eventually summing up the top seven uses; reason, explain, design, communicate, act, predict and explore.

The science of many models was the next subject to discuss throughout the workshop. This section of the workshop explored the idea of The Wisdom of Crowds. Through various examples such as the history of the submarine, the concept was clearly conveyed, emphasising the importance of collective judgement made by a group of unique individuals.

The workshop concluded with a few key takeaways. The first being the idea that knowing more than one model is significant in having the flexibility to apply them to multiple domains and gain a more collaborative result. The second takeaway was that lots of model thinking will often instigate better research, results and have a more positive impact on your personal life.

**What do I ‘now know’ that I did not before?**

After attending this workshop, I am more aware of the benefits of model thinking. Prior to attending this workshop my knowledge regarding modelling was little to none. It was intriguing to understand just how complex the world we live in is, where diverse people with different perspectives are able to aggregate various types of phenomena. It was fascinating how much modelling can contribute to understanding our universe better as they unravel loads of data to make it easier to understand and draw conclusions from. For example, scientists have depended on building scientific models to aid with predicting climate change through the use of climate models. These have been advantageous for countries at risk of vulnerable climatic situations, where analysing and recording data on temperature or salinity can be useful for predicting the next twenty years. The significance of modelling in shaping our world is a key takeaway that I have obtained from this workshop, and has additionally aided me in observing the world differently.

**What insights have I gained?**

In reflecting upon the tutorial workshop, my knowledge about the complex nature of ‘modelling’ was little. While it was clear that modelling was a process that aids with various aspects of life such as visualising a substitute system than a real system, the idea that individuals use modelling on a day to day basis was intriguing. Although it seemed like a simple concept, this workshop highlighted to me just how dependant we are on mental models for example. From supply and demand models to entropy, I was fascinated on how much we rely on these methods to aid our day to day lives. This was insightful, and it made me question some of the mental modelling I do every day.

**What are (my/the) perceived strengths and weaknesses that I have observed?**

A perceived strength of mine which I observed was that although the content was unusual and something I was unfamiliar with, I was able to grasp it quickly and apply it into my day to day life. While the concepts and ideas introduced were unfamiliar, I was able to

A perceived strength of mine which I observed was my ability to grasp new concepts that were introduced. As the concept of ‘modelling’ was fairly new to me, I believe I was able to understand the content of the workshop and start to apply new ideas to my everyday life. I was able to correlate rational and behavioural thinking which made me apply and understand my knowledge to a greater strength. Another strength I observed was my ability to research more information relating to these concepts. In particular, it was intriguing to learn more about behavioural thinking and just how much of a common practice it is for us every day. My weaknesses this week were procrastinating and an inability to focus which I believe may have been due to the length of the workshops as I was often finding myself distracted and unable to take in the information that was being explained.

**What were the challenged I have encountered/observed and how well (did I/my team) handle them?**

The challenge of procrastination and retention of knowledge was encountered, however the next day I was able ot reflect and go through any notes I had made during the workshop and add on to them. I then created short notes which would make it easy for me to look back through and understand.

**What would I do better next time and with what anticipated results?**

I hope to engage in more active learning, and ask more questions during the workshop. As these concepts and this subject is fairly new, I believe it will be worthwhile to stop and ask questions when I am unfamiliar which will help me become more efficient rather than waste time searching up on things myself.

**What theory proved to be useful and why? What have I learnt from this?**

The Wisdom of Crowds proved to be useful in understanding the relative advantages of collaborating with large groups of people in order to collectively make smarter decisions, rather than relying on individual experts. This idea was demonstrated through a class M&M experiment, which was useful in proving the significant and accuracy of this theory. While every individual had different answers, the average of most was calculated to be extremely close to the actual number. Through this practical real life example, the theory of James Surowiecki was reinforced, highlighting that the accuracy of a group produces far greater results than that of an individual. This raised an interesting question as to whether there really was a true skill in counting and estimating the number of lollies in a jar.