CA115 – DIGITAL INOVATION MANAGENT & ENTERPRISE

**Machine Translation:**

The first lecture of the day was presented on machine translation. We were first presented with some facts on the usage of machine translation. These facts showed us the mass translation done by this process. From this we can see that machine translation is rapidly surpassing the efficiency of professional translators. This point was further proven when Andy began to discuss the Brazilator project. Brazilator was a live translation and sentiment analysis of user-generated content that was run during the 2014 World Cup. Brazilator contained 24 machine translation systems that were run on twitter, which translated a total of 85,047,110 words throughout the entirety of the World Cup. It also ran sentiment analysis of the tweets, meaning it could detect if the tweet was positive or negative to the current game, allowing for the data collected to be put into a graph for display. In my opinion the most interesting aspect of Brazilator was its ability to overcome the technical problems presented, like non-standard text usage, lexical variation, and code-switching. The domain adaption of SMT also fascinated me. They used a database composed of many similar sentences pairs, which allowed Brazilator to build a translated sentence using words from the sentence pairs. In conclusion, I found machine translation to be a very interesting topic and an extremely useful tool for people that are involved with multilingual situations.

**Multi-media:**

The second lecture of the day was on multi-media. This lecture was focused on research on the analysis of data taken in from media. The research was carried out in Croke Park and it focused on three aspects; how loud is the crowd, how can they help grow good grass and how do crowds behave. They recorded this data using many cameras, microphones and sensors placed around the stadium. This data allowed for the researchers to record the highest decibel the crowd reached, how much light and water the grass received and how the crowds moved. In my opinion tracking the crowd movement was the most interesting aspect of this research. Using the already in place CCTV cameras to track the crowd’s movement was extremely fascinating. From the CCTV cameras, the researchers could estimate the amount of people in a single frame. The most intriguing part of the analysis of the CCTV cameras was their ability to track the crowd’s behaviour. The research team was working on building a program that could detect abnormal crowd behaviour (eg. An emergency) and alert the necessary people to deal with the situation. One solution to this problem which I found particularly ingenious was to teach the machine to detect when the crowd is acting normal and to flag anything that was deemed normal. In conclusion, I found this research to be very compelling as it relates to me, as a sports fan myself, also the fact that they were able to carry collect and analyse so much information using common technology.