This reflection piece is split into two parts – the first covering my reflections on the networks project and the latter covering my reflections on the module.

**Project Reflections**

One main difficulty I experienced during this project was during the data collection period. Singapore’s Parliamentary website does not keep an accessible archive of past order papers; only the most recent one is posted on the webpage. This reality meant I had to be more innovative to access past order papers (OPs). One method I tried to access past OPs was to edit the website URL (i.e., changing the date), which initially worked for a couple of OPs. However, I soon found out that Parliament Sessions did not happen on the same day every month, and changing the website URL became a time-consuming trial-and-error process. The most optimal method I discovered was to utilise Singapore’s Parliament Facebook page as they regularly share the URL of previous OPs, increasing my efficiency.

I also experienced some difficulties during the data wrangling process. Given that I had to scrape through 1,608 PQs manually, there was undoubtedly some human error. I ended up having to utilise certain excel functions and macros to ensure that the names of all Members of Parliament (MPs) were standardised, with no typos or additional blank spaces. I only realised this problem when I received an error message in R when I tried constructing the network in R for the first time. From this data-wrangling process, I learned that R is super sensitive, and extreme meticulousness is necessary to ensure the code runs smoothly. In hindsight, I thought of one possible improvement to lessen the data wrangling workload - utilising R functions to read these .pdf files and mine the text we want accordingly.

A critical takeaway from this project came during the network visualisation process. I learnt that visually translating numerical information not only gives a researcher a complete multivariate view but also enables them to observe how actors are embedded in the global structure and facilitate communication of structural findings to scientific and non-scientific audiences.

**Module Reflections**

One of my main takeaways from this module stems from learning how social network analysts study patterns of relations, not just connections between pairs. This means that while relations are measured as existing between pairs of nodes, understanding the effect and meaning of a tie between two nodes requires considering the broader network ties patterns. For example, understanding relations of support, jealousy and competition between siblings requires understanding and considering each child's relationship with the parents.

Topics-wise, I found the various applications of social network analysis incredibly fascinating, especially on terrorist networks. For such networks, one of the most frequently reported metrics is actor centrality. Actor centrality is used as a measure of relative importance to infer social control. Terrorists may be of influence in a network because (i) they are active players connected to many people (i.e., degree centrality), (ii) they are able to quickly access or diffuse information and resources to and from the network (i.e., closeness centrality) or (iii) they can bring people together and control the flows of communication and resources between otherwise disparate parts of the network (i.e., betweenness or max-flow centrality).

However, one difficulty of analysing such terrorist networks is that applications of social network analysis in the counterterrorism domain appear to still be in their infancy. Much of the analyses rely heavily on publicly available sources, such as media reports, and vary in scope. A particular area of interest that has been neglected so far is the cross-links between terrorism and organised crime. We know that crime has become a critical source of terrorist funding. Still, it remains unclear to what extent activities are joined efforts, on what basis actors decide to cooperate, and whether these cross-links should be considered to pose a ‘new threat’ or offer ‘new opportunities’ to counter them (e.g., infiltration).