Team 43 Retrospective

**Part 1 Client Demo and Feedback:**

**Backend:**

**Client’s thoughts:**

There is no error on the lack of ID for certain team members and we most likely don’t have those members SCOPUS Id. A thirty-researcher limit is ok but is an arbitrary number, will potentially miss out on some larger clinical trial papers. Try and incorporate first degree links for the big four but don’t go beyond. No specific size in mind had not planned for a goal number of links. Ideally produce an Instance of the whole network that can be updated once a year along with individual maps.

Changing names and multiple Id’s is a massive problem in all of research and will need to attempt to resolve errors on the backend. Ensure that unresolved errors prompt user with the steps to ensure a fix is implemented.

Anna, Bruce and Janette all with over 1500 first degree coauthors. There is still value in including them, Bruce and Janette could be overlayed as they publish a lot of collaborative papers. If adding an exclusion list add Richard lake to the list as well to ensure the core group is included.

The value of the network is within finding researchers that the core research team does not know and are well connected, potentially build extension to highlight these researchers.

**Teams’ thoughts:**

We are tracking well overall, currently at the point where the biggest rate limiting factor is SCOPUS and their limiting 5000 queries per week. We did not anticipate the exponential nature of networks and the massive amounts of publications and coauthors on different publications resulting in often many more than 5000 queries for links.

We are currently at the point where we have the layout of the database and the script to populate the database done and its now working with SCOPUS to try and populate the database over the next few weeks with the belief that the maintenance and updating queries will be far less than the startup cost.

We are putting a lot of time and effort into ensuring the database is future proof with extra redundancy and checks and balances to ensure that erroneous researchers and conditions are resolved on the backend without user input. The future goals are to build a complete database of first and second degree links and setup Dr Ward’s API key so that the database can be updated.

**Frontend:**

**Client’s thoughts:**

The lines demonstrating degrees of linkage and relations are ambiguous and don’t demonstrate the relationships properly. Need to update the groups that topics belong to so that there is a discernable key with the randomly assigned colours otherwise the network is ambiguous. Need to have numerous lines to demonstrate multiple publications between researchers. Happy with thickness to display the number of relations rather than count. Is topic based on keywords which are assigned by authors or the SCOPUS assigned topic which are inaccurate. Attempt to use author keywords instead of SCOPUS assigned, try and group these keywords to make meaningful topics. Happy with input form to update list.

**Teams’ thoughts:**

So far, in terms of front-end development things have been tracking along smoothly. Currently we have established a colour palette and theme for the overall design of the app. We have implemented a graph visualising tool which utilises neovis and the local neo4j database to populate nodes as well as having a page to add or remove researchers and publications. There are some tasks remaining such as populating the database with researchers as well as certain changes to the styling of the network graphing tool itself as well as displaying certain data regarding researchers and publications. Overall, progress has been smooth and we expect the outstanding tasks to be completed within the timeline set out for sprint 3.

Our current implementation of graphing software (Neo4J) has had unforeseen limitations restricting the customization of the network graph, including but not limited to colour allocation of nodes and edges, font, and node shape, as well as the effect of interaction with the nodes. 'Node Physics' or the rules governing the way the nodes behave when moved across the screen are preset in Neo4J, nodes can sometimes overlap, and there is no way to currently prevent edges crossing. In order to introduce further aesthetics and customizability to really make the program stand out, we believe it might be worth researching other graphing tools as we move forward with sprint three.