Introduction to Network Analysis
Session 2 Handout

Brian Tsz Ho Wong

Ph.D. Candidate, Asian Studies

CDCS Training Fellow

University of Edinburgh

For the first half of the class, we will use Harvard University's China Biographical Database Project (CBDB) to demonstrate Gephi's GeoLayout and ExportToEarth features. CBDB is one of the largest and most comprehensive biographical databases for the study of Chinese history. It covers Chinese historical figures from the last 1000 years. Before class, please download the CBDB in Microsoft Access format.

1. To download the CBDB, you need to go to their website and then you will find a hyperlink 'Download Latest Microsoft Access Format' (https://projects.iq.harvard.edu/cbdb/download-cbdb-standalone-database).
2. Click on it and it will take you to the registration page.
3. Create an account, which is free. I hope to be able to upload the database to github so that you do not have to download it, but I failed as the file is too large.
4. After creating an account, you will be taken to a 'Download CBDB Standalone Database' page. Download the【CBDB Standalone Database】CBDB_bg_20240208.7z - Recommended. It will take about 3 to 5 minutes to download.
5. A compressed file 'CBDB_bg_20240208' will be downloaded, extracted and you are ready to go.

The CBDB has many features, we will not go through them all. If you are interested, there is a very detailed user's guide in the 'HelpFiles' in the compressed file 'CBDB_bg_20240208'. The user's guide is 153 pages long, you don't need to (and don't waste your time!) to read it.

If you have any problems downloading the CBDB, please contact Brian in Teams or by email (twong4@ed.ac.uk).

In class we will use the example of the Xiang Army (*Xiang jun* 湘軍, also known as the Hunan Army) coalition. We will look at the social networks of some of its key leaders, including Luo Zenan (羅澤南, 1807-1856), Zeng Guofan (曾國藩, 1811-1872), Hu Linyi (胡林翼, 1812-1861), Zuo Zongtang (左宗棠, 1812-1885), and Peng Yulin (彭玉麟, 1816-1890). The Xiang Army was organised by Zeng Guofan and used by the Qing government to suppress the Taiping Rebellion in the mid-19th century. The leaders of the Xiang Army, such as Zeng and his brothers, disciples, and allies, became statesmen and dominated the Qing court in the late 19th and early 20th centuries. Using Gephi and its GeoLayout and ExportToEarth functions, we will discover the effectiveness and limitations of CBDB.

For the second part of the class, you can start working on your own dataset.

If you don't have your own dataset, you can try to build a Gephi dataset for the Hausburg family from the 15th to the 18th centuries, a family famous for intermarriage and inbreeding. An article in *Nature* provides a short dataset of the Hausburg family's marital relationships (https://www.nature.com/articles/hdy201325). However, the information provided by this dataset is not sufficient to construct a Gephi dataset, so we need to consult a Wikipedia page on the Hausburg family tree (https://en.wikipedia.org/wiki/House_of_Habsburg).

Before next class

In the next session you will work on your own dataset, as one of the aims of this course is to enable participants to use Gephi confidently in their current and future research, where dataset building is the key to using Gephi. If you are really unable to prepare materials to attempt to build your own dataset in the third session, I can create a project for you using the materials from the CBDB. The project can be tailor-made, so please come and discuss it with me **at least 3 days** before the class.