Power and Influence at the Universal Periodic Review
A Network Analysis of UPR Testimonies on Business and Human Rights

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Background

1. Literature Review

The Universal Periodic Review (UPR) is a monitoring mechanism of the Human Rights Council (UNHRC) that reviews the human rights records of all member states. Through network analysis of UPR recommendations for 'business and human rights' issues (a growing yet contentious field), this paper seeks to understand *how attributes like gross national income and democratic indicators might affect who receives and gives recommendations at the UPR.* Through such analysis, it might be possible to understand colloquial ideas of power and influence at the UPR: i.e. if "power is money", or conversely, if the UPR recommendation system might be a "weapon of the weak", as it is sometimes thought to be.

2. Data

o UPR database: All recommendations classified as 'Business and Human Rights' recommendations (100 nodes, 156 edges, directed network, geocoded*, 2005-2019)
o Economist Intelligence Unit: Democracy Index (scale: 0-10, 2018)**
o World Bank: GNI (nominal, Atlas method, $USD, 2018)

* Geocoded according to UN categories. Palestine attributed to APG (but has no official group).
** Not ranked: Belize, Marshall Islands, the Maldives, Sao Tome and Principe, Solomon Islands

3. Hypothesis

Structural-Related Hypotheses

H_1 = Little clustering network due to diversity of states involved and desire for equal representation at UPR (low transitivity)
H_2 = High clustering due to select states being primary senders/receivers of recommendations (high transitivity, high number of triads)
H_3 = High reciprocity due to political nature of recommendations ("eye for eye, tooth for tooth" effect)

Attribute-Related Hypotheses

H_4 = States give less recommendations to similar states in gross national income, democracy index, and geography (peer, ally, heterophily effect)
H_5 = States receive less recommendations from similar states in gross national income, democracy index, and geography (peer, ally, heterophily effect)

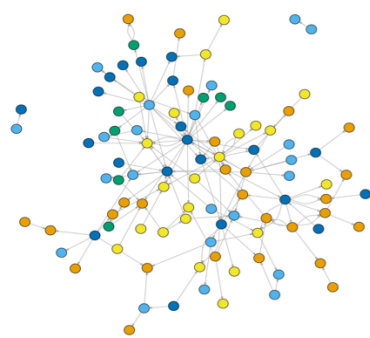## Network Analysis

1. Initial Graphs

Figure 1: Non-weighted   *Figure 2(right)*: Weighted by Degree

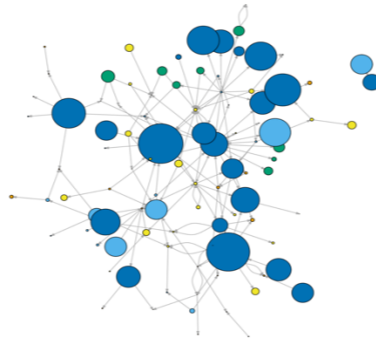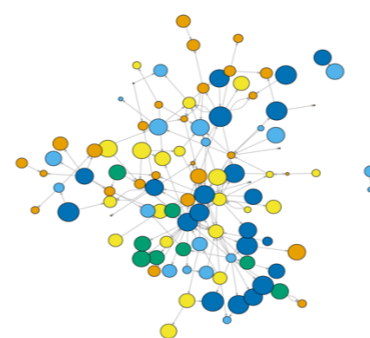|	
Orange	Africa Group (AG) (geo.1)
Yellow	Latin America and Caribbean Group (GRULAC) (geo.4)
Light Blue	Asia and Pacific Group (APG) (geo.2)
Dark Blue	Western Europe and Other Groups (WEOG) (geo.5)
Green	Eastern European Group (EEG) (geo.3)

Weighted by: *Figure 3*: GNI   *Figure 4:* Democracy Index

Weighted by: *Figure 5*: In-Degree   *Figure 6 (right):* Out-Degree

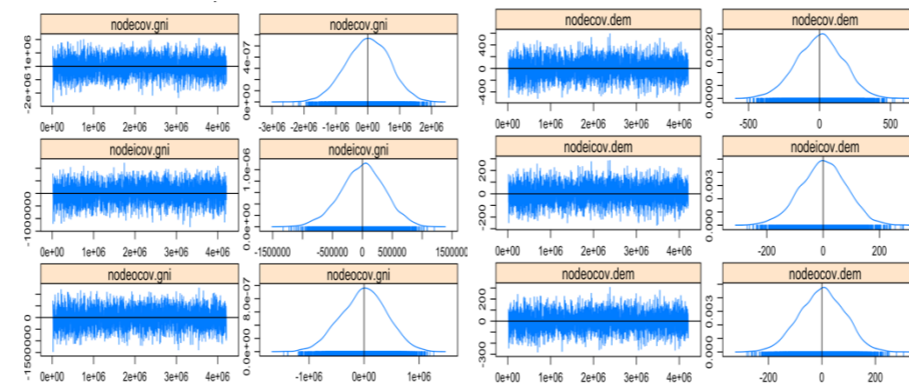### 2. ERGM Model

Figure 7: Convergence Model

Figure 8: Table of Terms

Terms	Estimate	p-value
Density (edges)	-5.161e+00 (0.005702523)	< 1e-04***
Reciprocity (mutual)	1.262e+00 (0.779339335)	< 1e-04***
gni (nodeicov)	3.068e-06 (0.500000767)	0.330512
gni (nodeocov)	9.847e-06 (0.500002462)	0.000472***
gni (absdiff)	2.461e-05 (0.500006152)	< 1e-04 ***
dem (nodeicov)	4.625e-02 (0.511560624)	< 1e-04***
dem (nodeocov)	6.404e-02 (0.516005519)	< 1e-04***
dem (absdiff)	-4.561e-02 (0.488598571)	< 1e-04 ***
AG (nodefactor.geo1)	2.311e-01****	< 1e-04****
APG (nodefactor.geo2)	2.625e-03 (0.465127239)	0.4246
EEG (nodefactor.geo3)	-4.410e-01 (0.328878118)	< 1e-04***
GRULAC (nodefactor.geo4)	1.105e-01 (0.498078309)	< 1e-04***
WEOG (nodefactor.geo5)	4.547e-01 (0.443536305)	< 1e-04***

*p-value: * <0.01, ** <0.001, *** <0.0001*
**** Note: p-value was calculated separately for geo1 (AG) due to the baseline required to call nodefactor (categorical) attributes.

3. Conclusions

Structural-Related Hypotheses

H_1 was confirmed, while H_2 was disproven with initial graph of data and modeling. Could not test structural elements (ie transitivity, preferential attachment) due to lack of triads in the model. Reciprocity measures confirm H_3.

Attribute-Related Results

H_4 and H_5 are somewhat disproven. The positive and statistically significant values for out-degree gni (gross national income) attributes indicates that countries are more likely to have a tie (received or given recommendation) the greater the difference in gni. However, the opposite is the case in democracy levels: the greater the difference in democracy levels, the less likely there is a tie. On the other hand, analyzing geographical data proved that countries are both more and less likely to give and receive recommendations to countries in their same regional grouping. While EEG countries are less likely to recommend or receive, GRULAC and WEOG countries are more likely to do so. This indicates a mixed correlation between geography (possible strategic alliance), gross national income (heterophily), and democracy (peer critique) that warrants further study.

4. Goodness-of-Fit Model
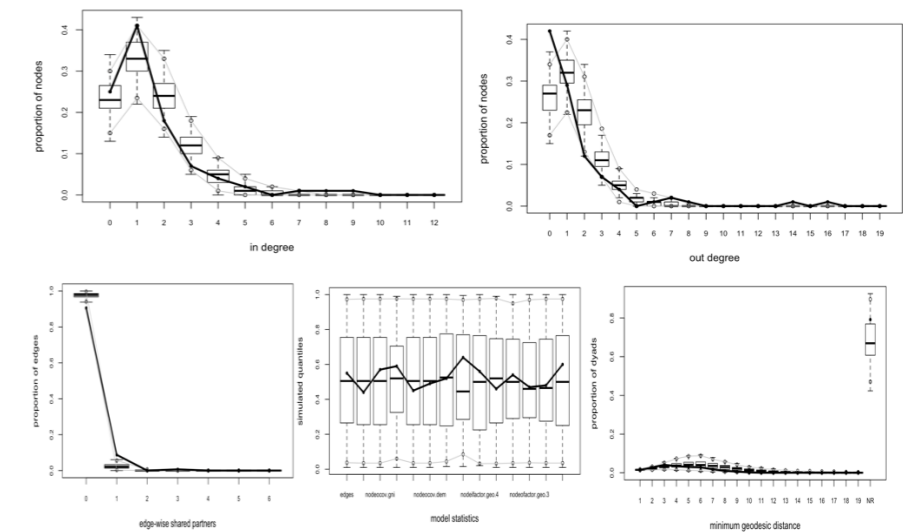
Modelling demonstrates somewhat of a correlation with those of the observed network, especially in in-degree and out-degree measures.

4. Problems and Limitations

Ultimately, this study was meant to demonstrate a proof-of-concept for future study, not necessarily a converged graph. A number of improvements could be made for future study, in order to expand the scope of the project:

o *Data*: No democracy index data for many small island states, which affects the results induced.
o *Analysis:* While convergence was achieved, a more accurate network would include other UPR categories of recommendations that would more accurately affect the reciprocity, transitivity of recommendations.

5. References

Billaud, Julie. "Keepers of the truth: producing 'transparent' documents for the Universal Periodic Review".

McMahon, E. *The Universal Periodic Review: A Work in Progress.* Geneva: Friedrich-Ebert-Stiflung, 2012.

Sen, P. ed. *The Universal Periodic Review of Human Rights: Towards Best Practice.* London: Commonwealth Secretariat, 2009.