

# Solutions to Assignment 1

## Advanced Tools for Complex Network Analysis

### CNET 5052, Spring 2026

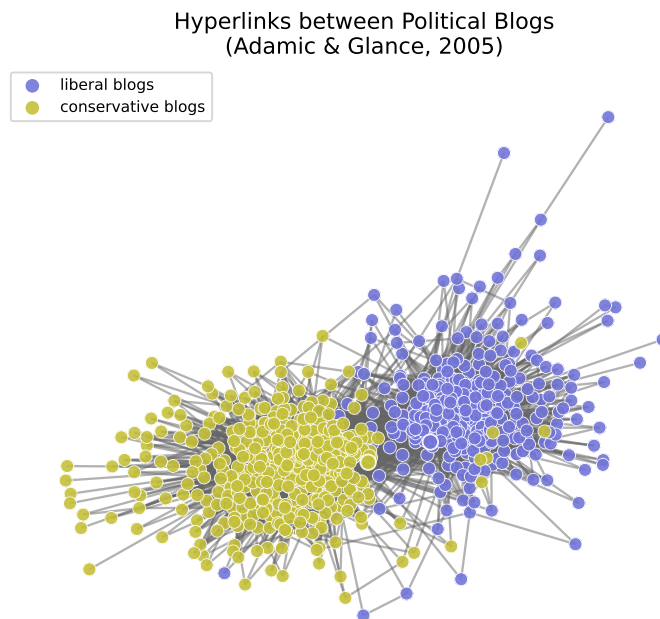
ADD YOUR NAME\*

#### 1. *Question 1.*

- (a) Add! Your! Answer! Here!
- (b) Add! Your! Answer! Here!
- (c) Add! Your! Answer! Here!
- (d) Add! Your! Answer! Here!

#### 2. *Question 2.*

- (a) Add! Your! Answer! Here! and maybe add a visual...?



- (b) Add! Your! Answer! Here!
- (c) Add! Your! Answer! Here!
- (d) Add! Your! Answer! Here!

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\* ADD CLASS REPO FORK [https://github.com/your\\_github\\_handle/cnet5052\\_sp26](https://github.com/your_github_handle/cnet5052_sp26)

### 3. Question 3.

(a) Add! Your! Answer! Here!

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```
# Supplement your written text with code, if you'd like!
import networkx as nx

G = nx.karate_club_graph()

print("We still want to see your actual code in your github repos,
      but this can be useful for making a point in your answers")
```

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(b) Add! Your! Answer! Here!

(c) Add! Your! Answer! Here!

(d) Add! Your! Answer! Here!

### 4. Question 4.

(a) Add! Your! Answer! Here!

(b) Add! Your! Answer! Here!

(c) Add! Your! Answer! Here!

(d) Add! Your! Answer! Here!

(e) Add! Your! Answer! Here!

### 5. Question 5.

(a) Add! Your! Answer! Here!

(b) Add! Your! Answer! Here!

(c) Add! Your! Answer! Here!

(d) Add! Your! Answer! Here!

If you reference anything, add it to the bibliography below and cite it in the text using `\cite{Hartle2020_wegd}` [1].

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- [1] Hartle, H., Klein, B., McCabe, S.D., Daniels, A., St-Onge, G., Murphy, C., & Hébert-Dufresne, L. (2020). Network comparison and the within-ensemble graph distance. *Proceedings of the Royal Society A*, 476: 20190744. doi: [10.1098/rspa.2019.0744](https://doi.org/10.1098/rspa.2019.0744).