

Exercise:
**Manually collecting the
movie-actor network of
marvel cinematic universe**
Or recipe-ingredient network



Go to Wikipedia page: Marvel Cinematic Universe, select list of marvel studio movies
https://en.wikipedia.org/wiki/Marvel_Cinematic_Universe

Go to IMDB website, search movie related information

Go to Stars column -> full Cast & Crew,
Copy and paste the main actors/characters into an excel.

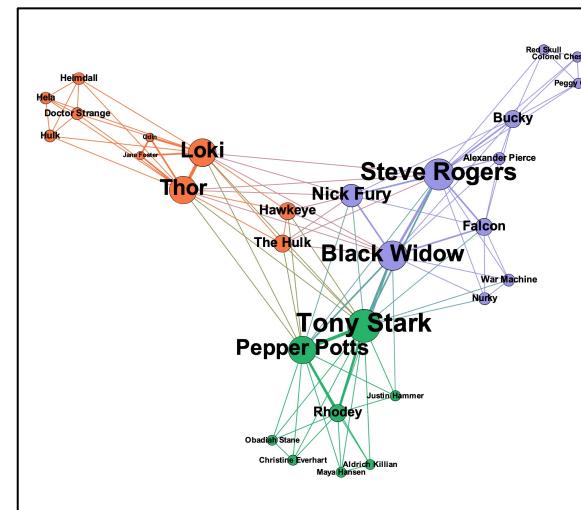
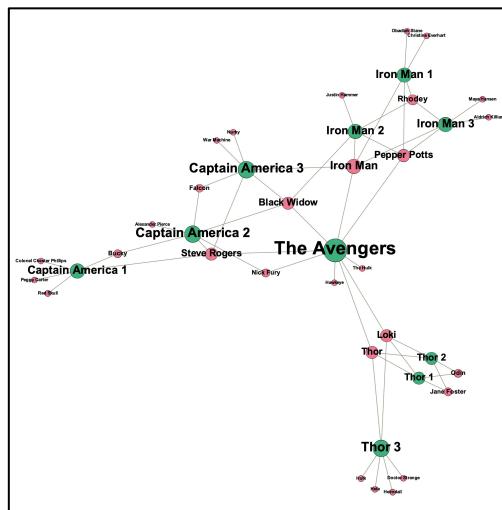
<https://www.imdb.com/title/tt0371746/>



The data should have the following:

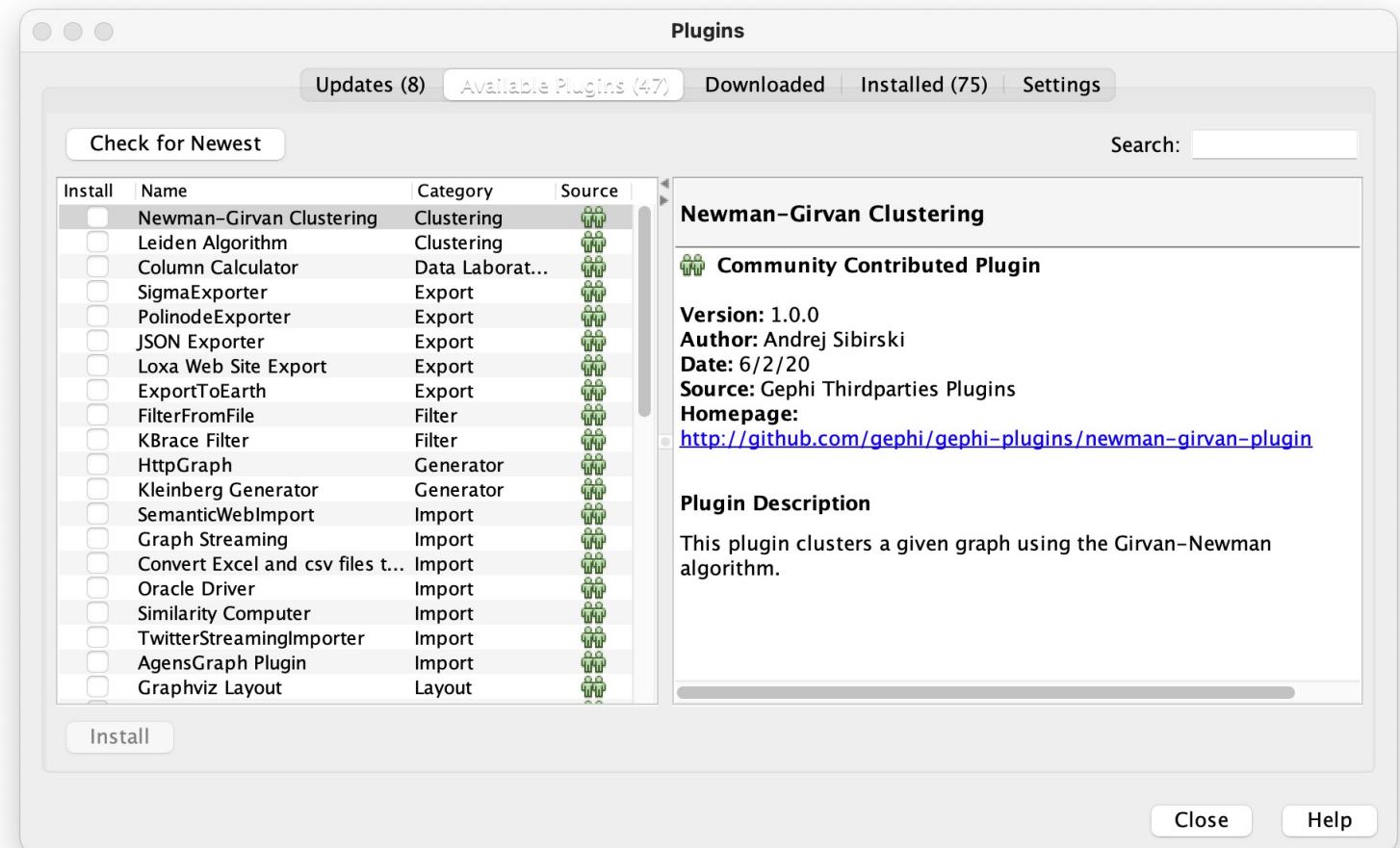
two columns with movie name at the first column, and main actors/characters at the second column, multiple actors are separated by **comma**

	A	B
1	Movie	Actors
2	Iron Man 1	Tony Stark, Rhodey, Obadiah Stane, Pepper Potts, Christine Everhart
3		

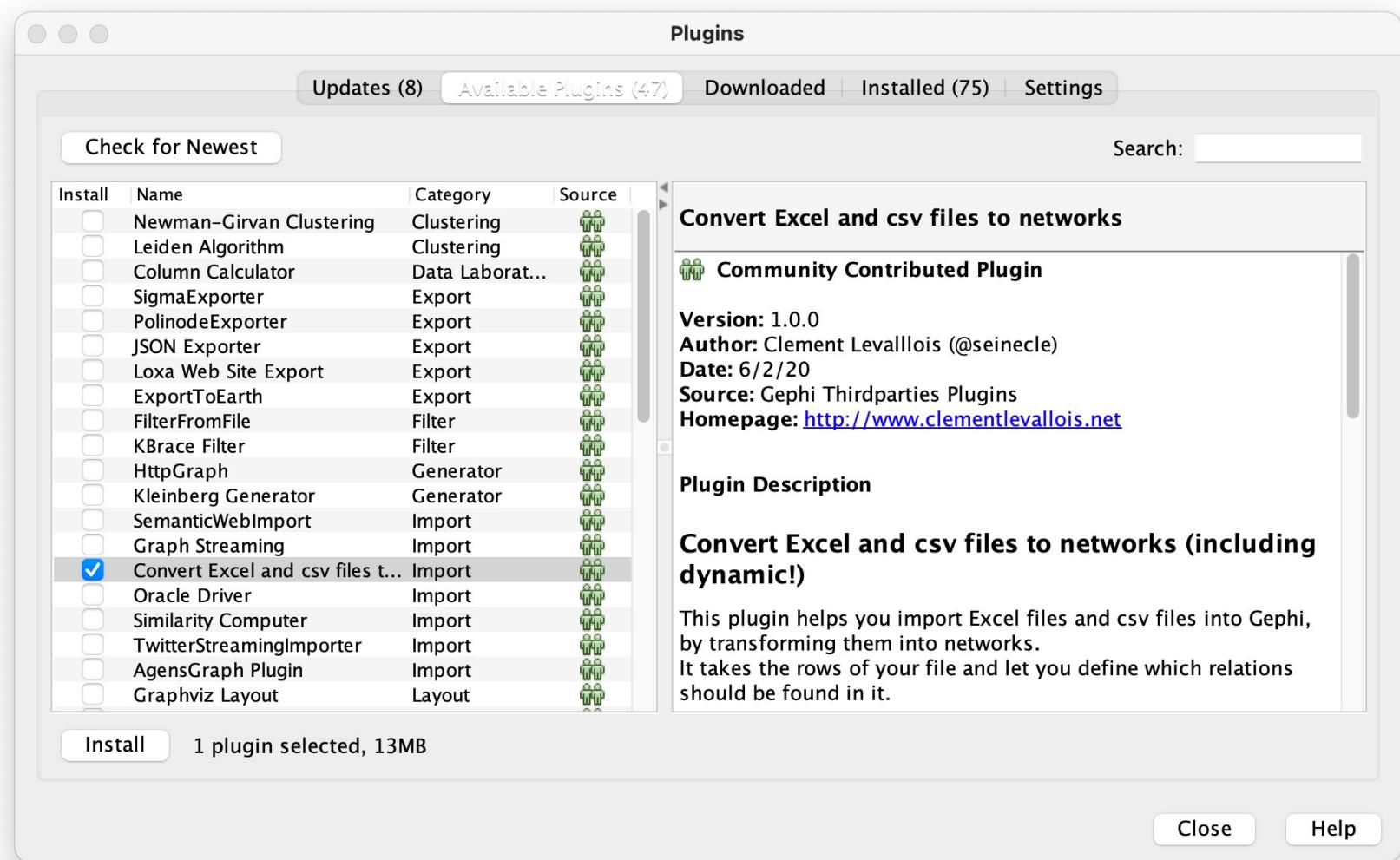


Add plugins in Gephi

Add plugins:
Tools -> Plugins -> Available
Plugins



- Find or Search for:
- Convert Excel and csv files to networks
- Polygon Shaped Nodes
- Install and Restart Gephi

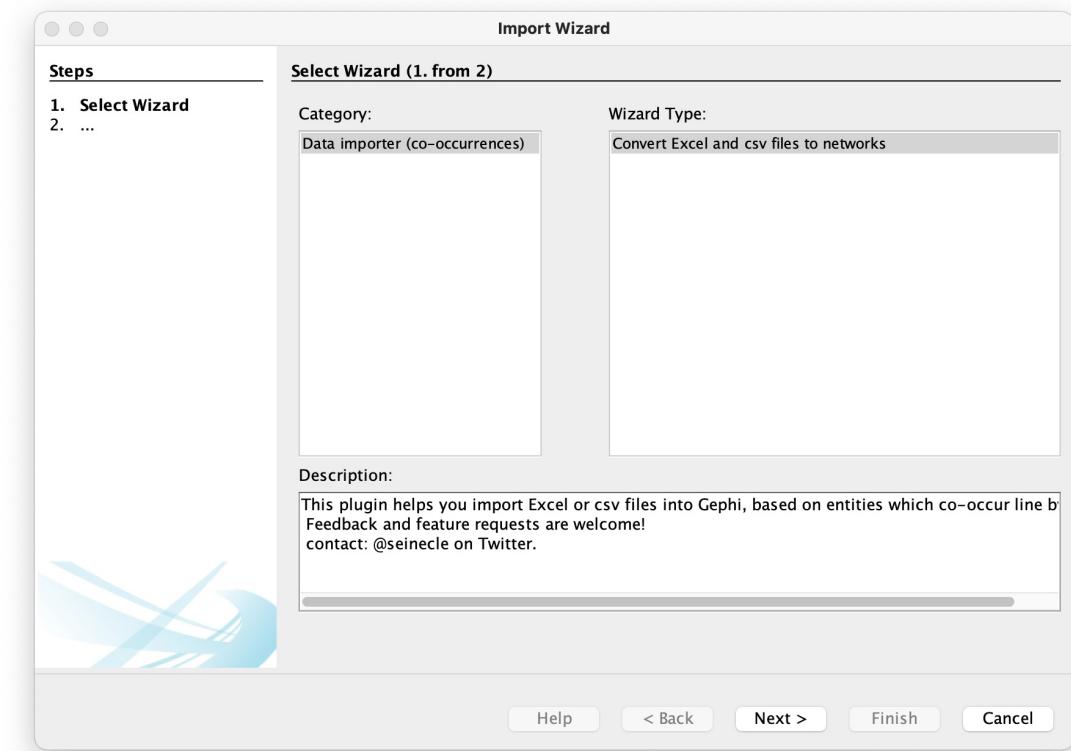
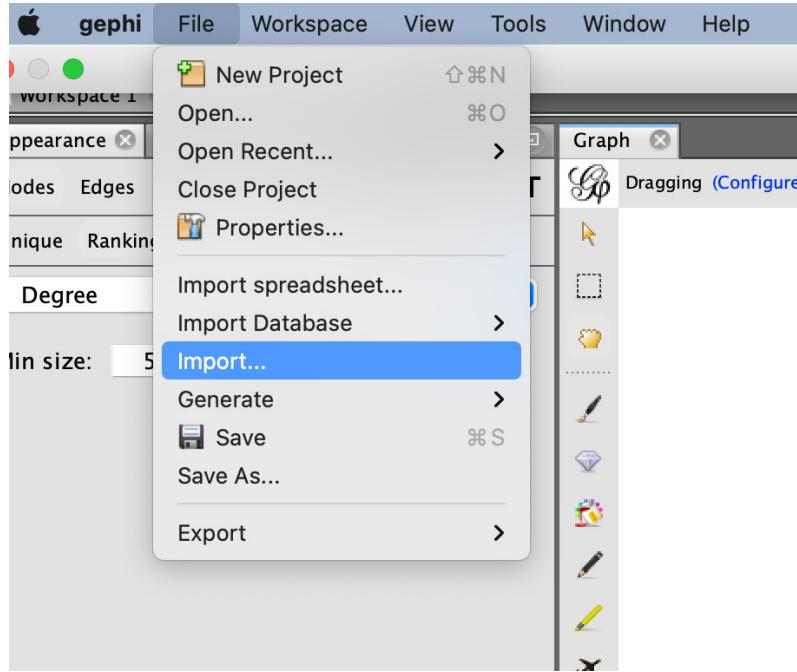


Readin Bimodal Network

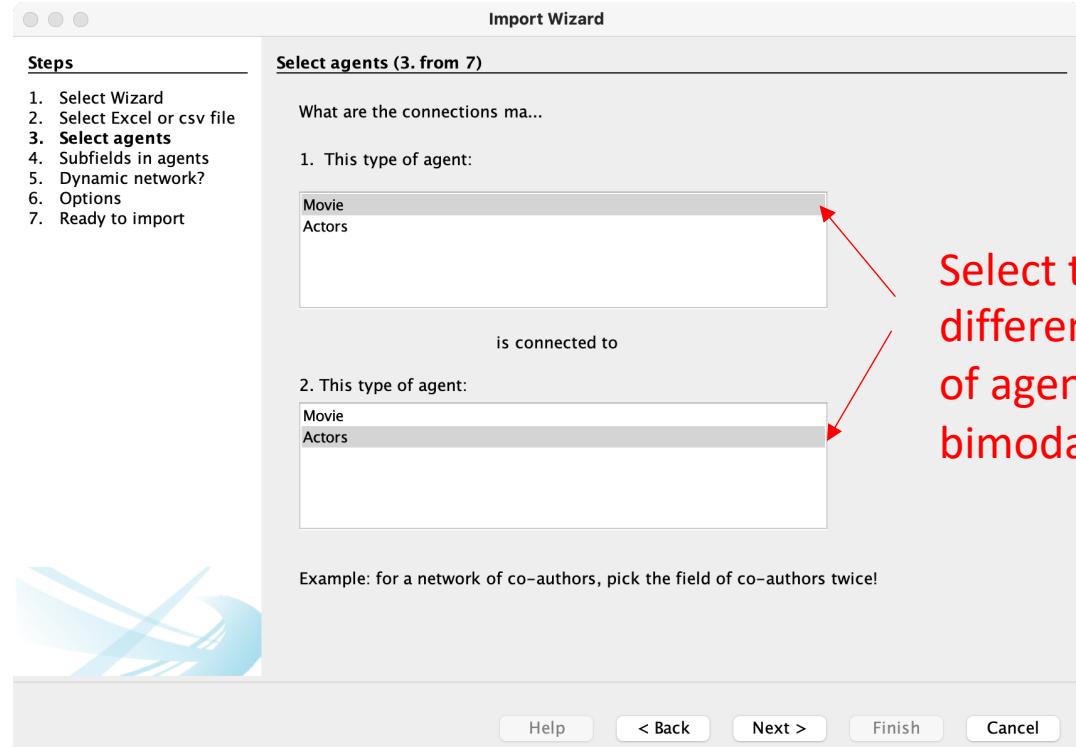
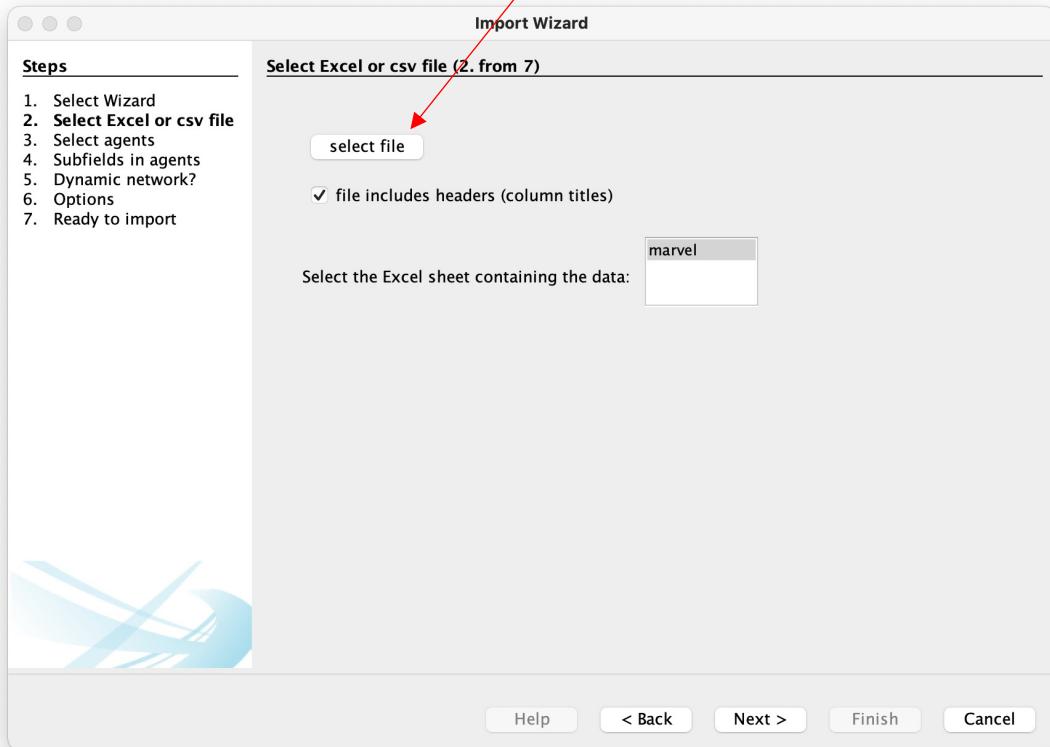
Our Sample Data: Affiliation network of Actor-Movie

	A	B	C	D
1	Movie	Actors		
2	Iron Man 1	Tony Stark, Rhodey, Obadiah Stane, Pepper Potts, Christine Everhart		
3	Iron Man 2	Tony Stark, Rhodey, Pepper Potts, Black Widow, Justin Hammer		
4	Thor 1	Thor, Jane Foster, Loki, Odin		
5	Iron Man 3	Tony Stark, Pepper Potts, Rhodey, Aldrich Killian, Maya Hansen		
6	Thor 2	Thor, Jane Foster, Loki, Odin		
7	Captain America 1	Steve Rogers, Peggy Carter, Bucky, Colonel Chester Phillips, Red Skull		
8	Captain America 2	Steve Rogers, Nick Fury, Black Widow, Alexander Pierce, Bucky, Falcon		
9	Captain America 3	Steve Rogers, Tony Stark, Black Widow, Nurky, Falcon, War Machine		
10	Thor 3	Thor, Loki, Hela, Heimdall, Hulk, Doctor Strange		
11	The Avengers	Tony Stark, Steve Rogers, The Hulk, Thor, Black Widow, Hawkeye, Loki, Nick Fury, Pepper Potts		
12				

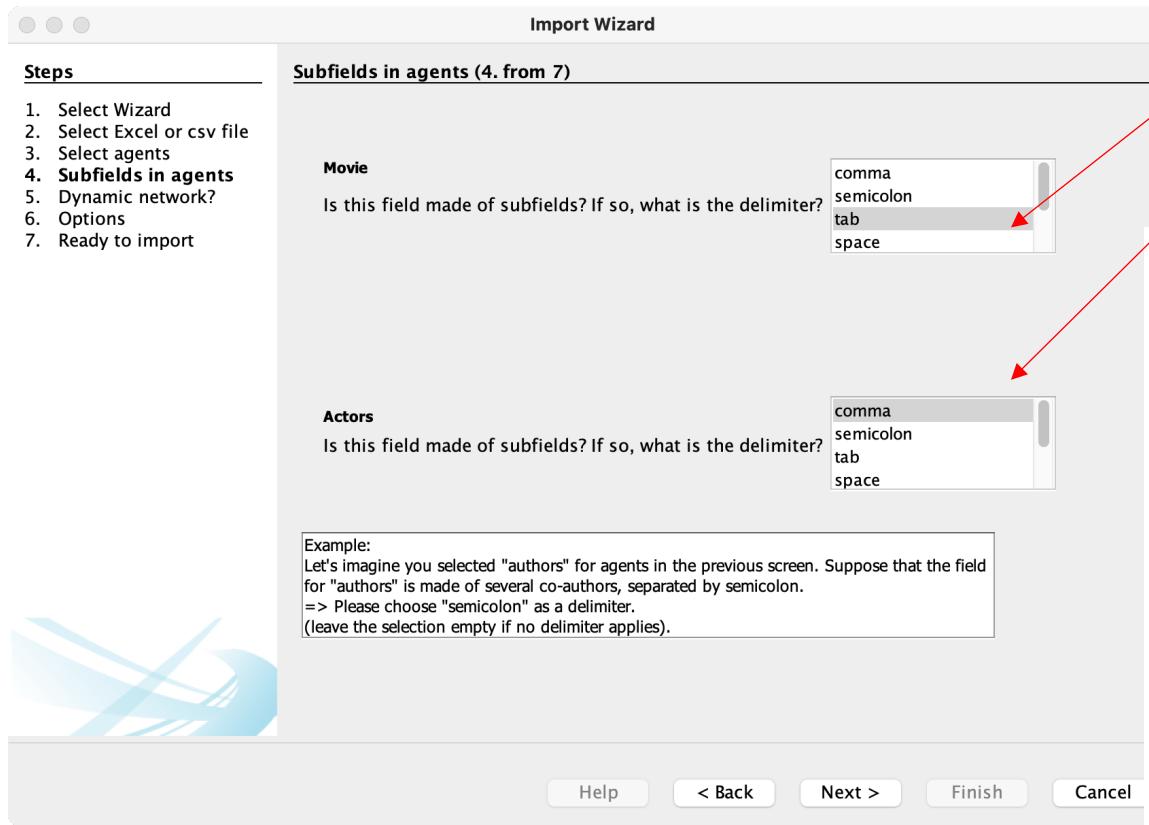
Create a Movie-Actor bi-mode network



Select the data file

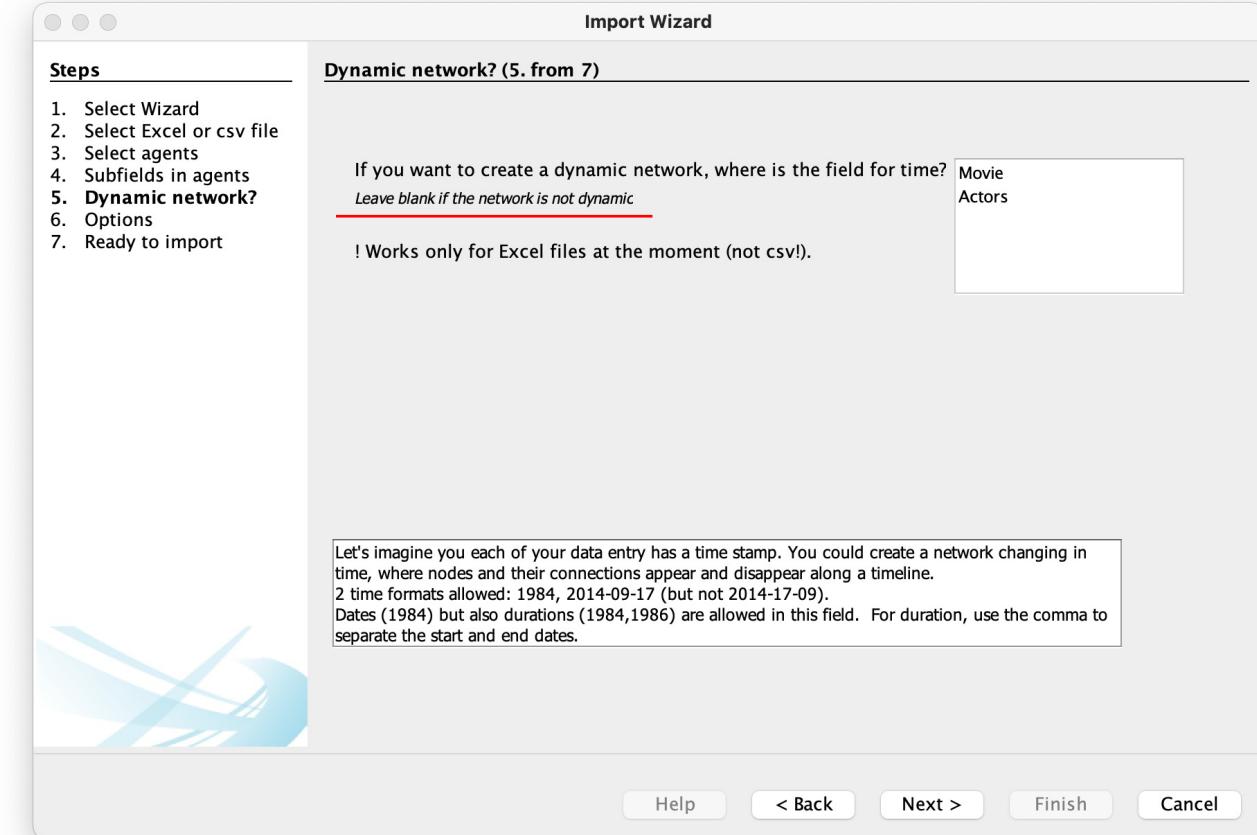


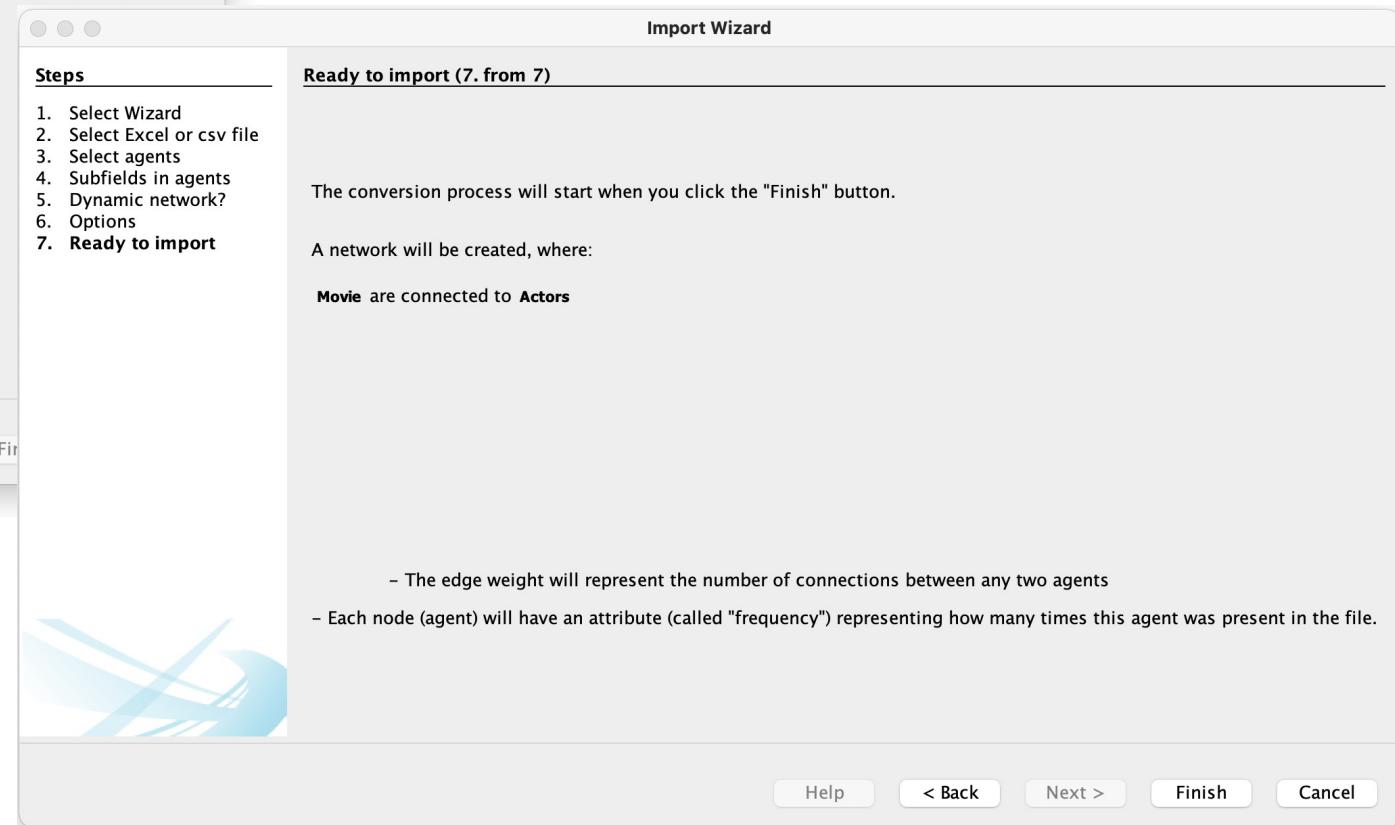
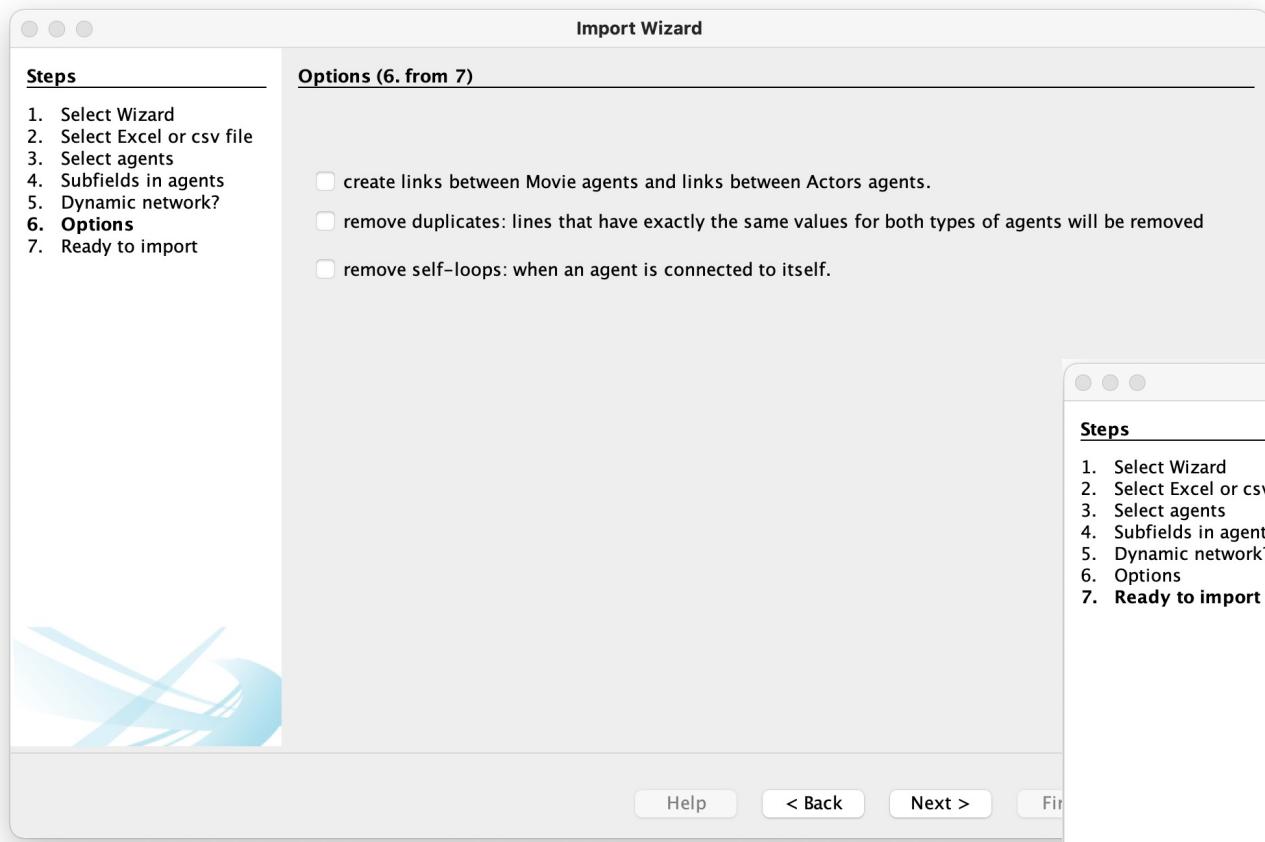
Select two different types of agent for bimodal network

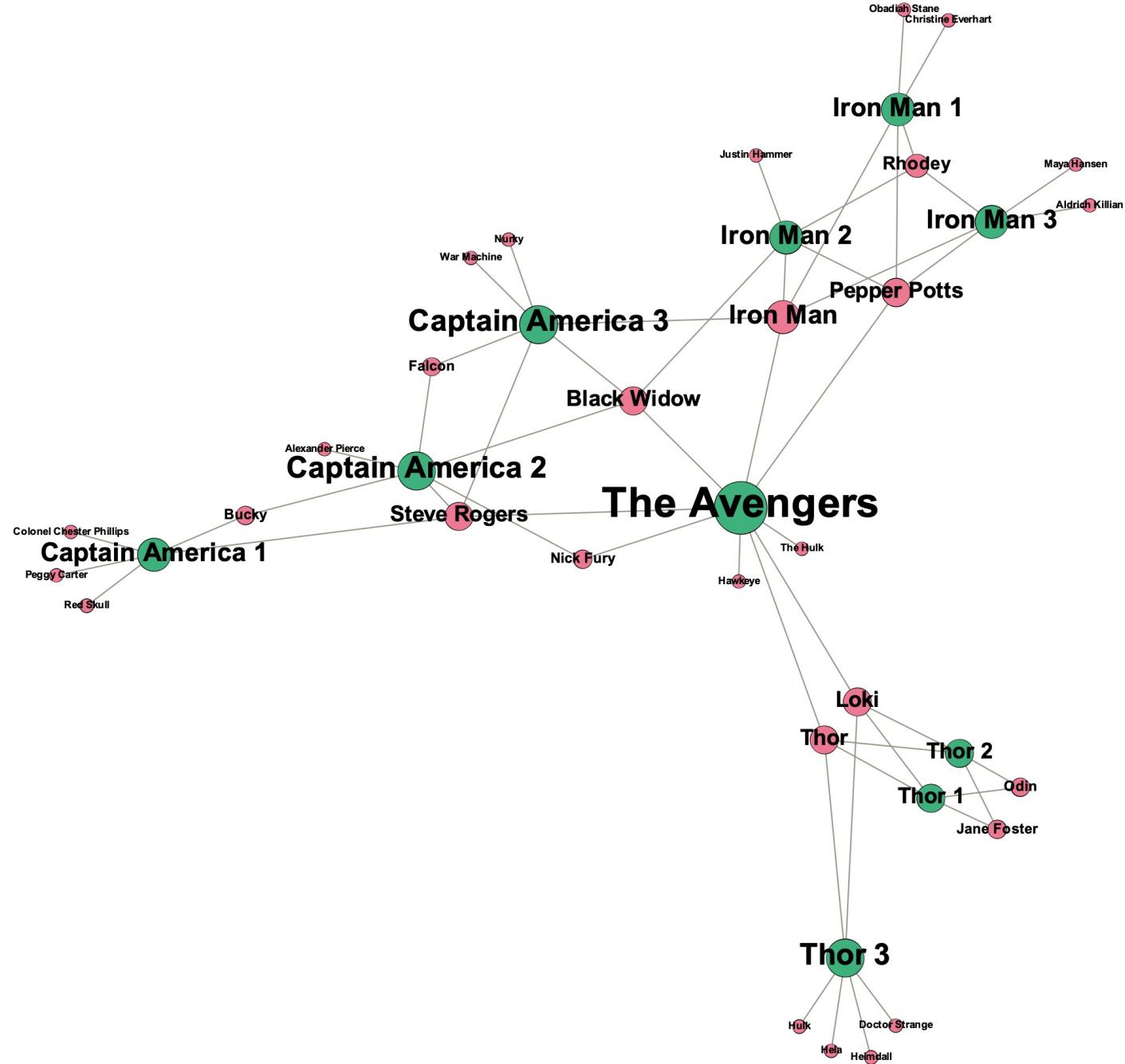


Separate by tab

Separate by comma

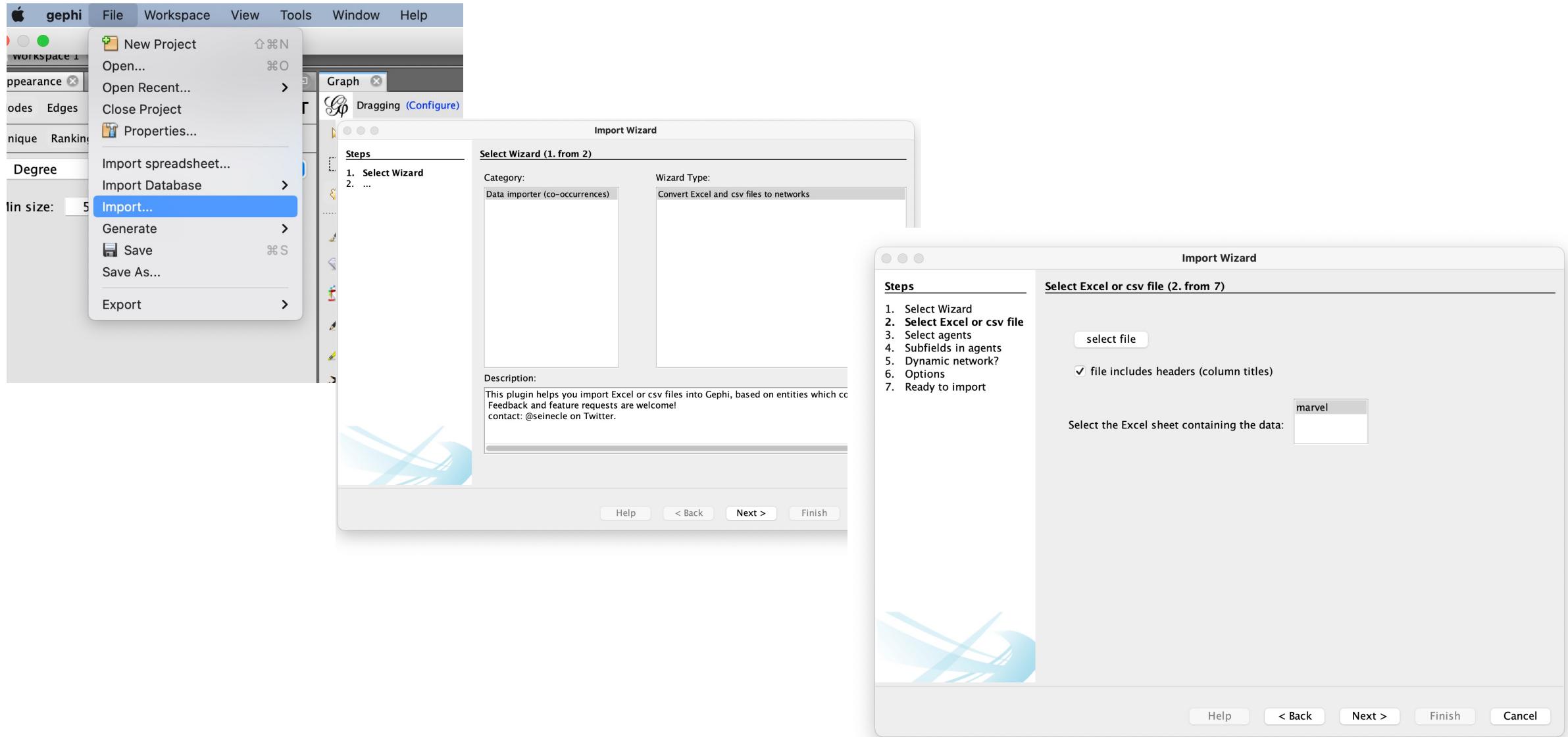


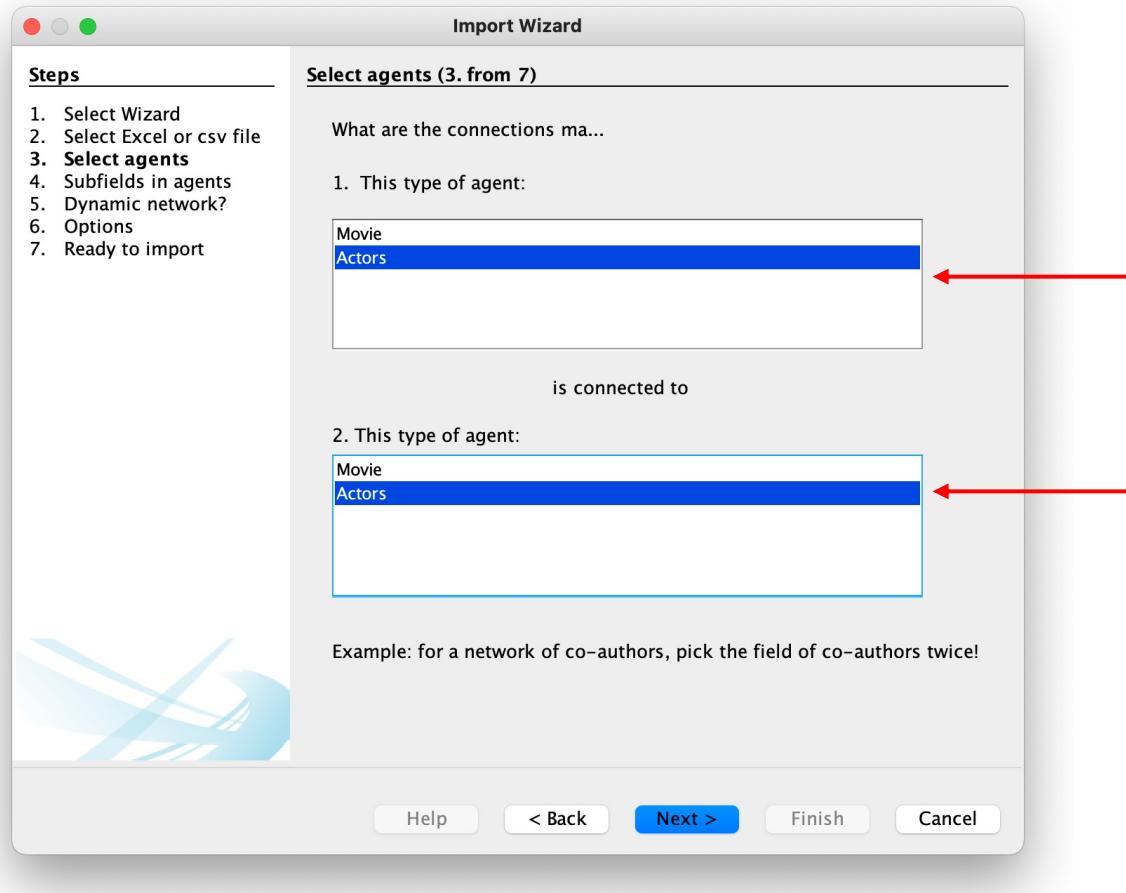




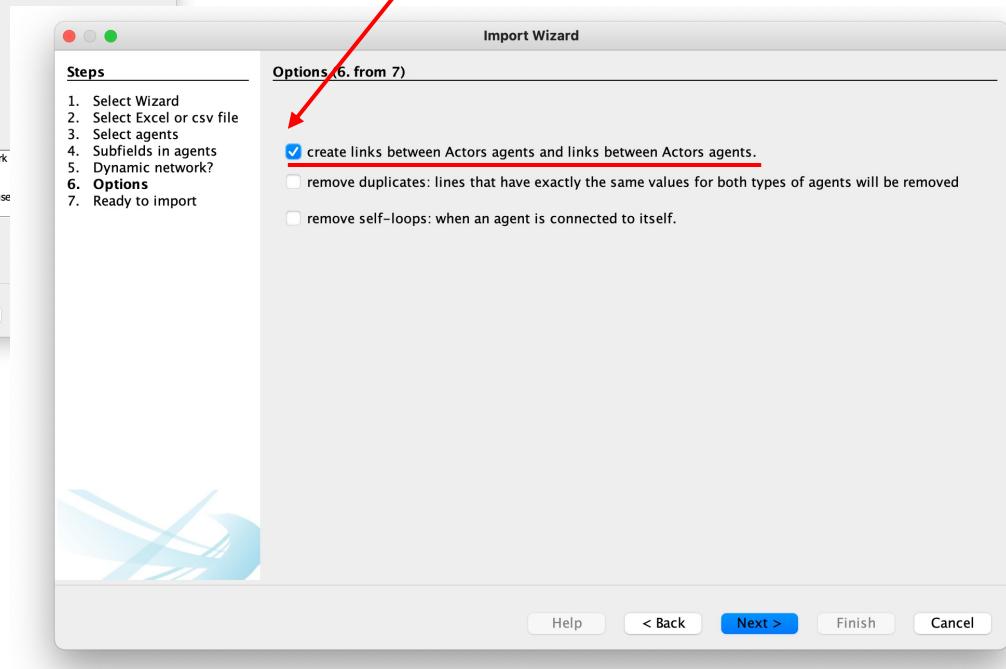
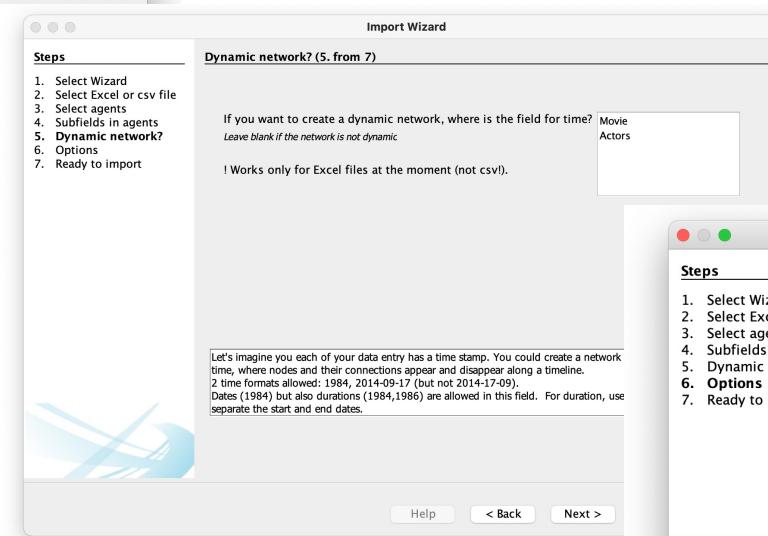
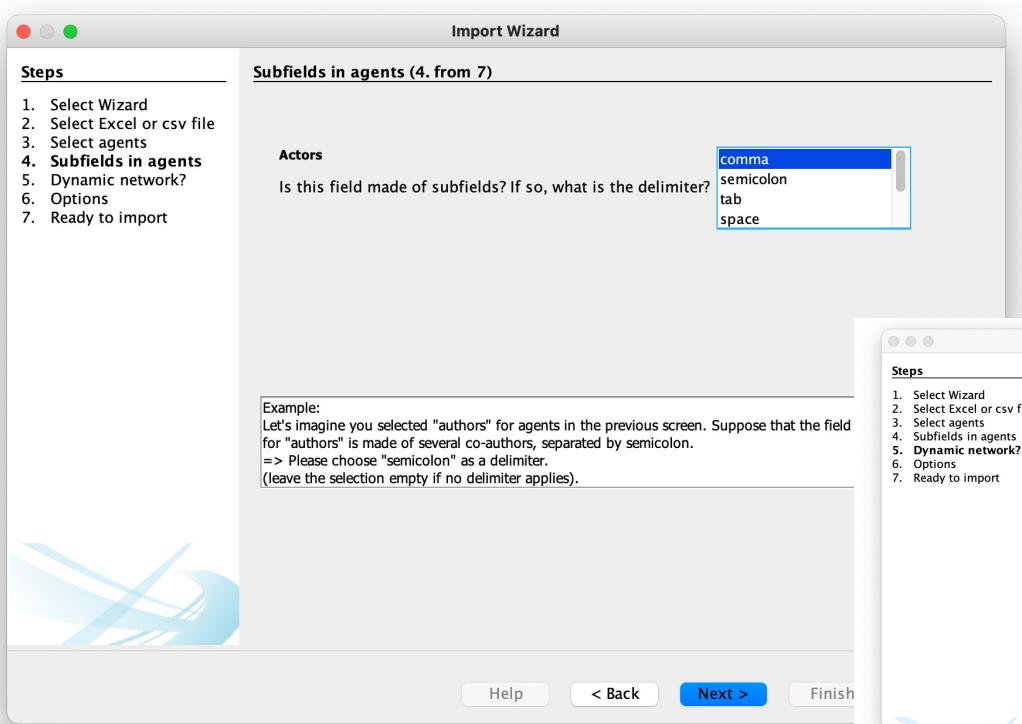
Bi-mode Network

Transform bimodal network to unimodal network

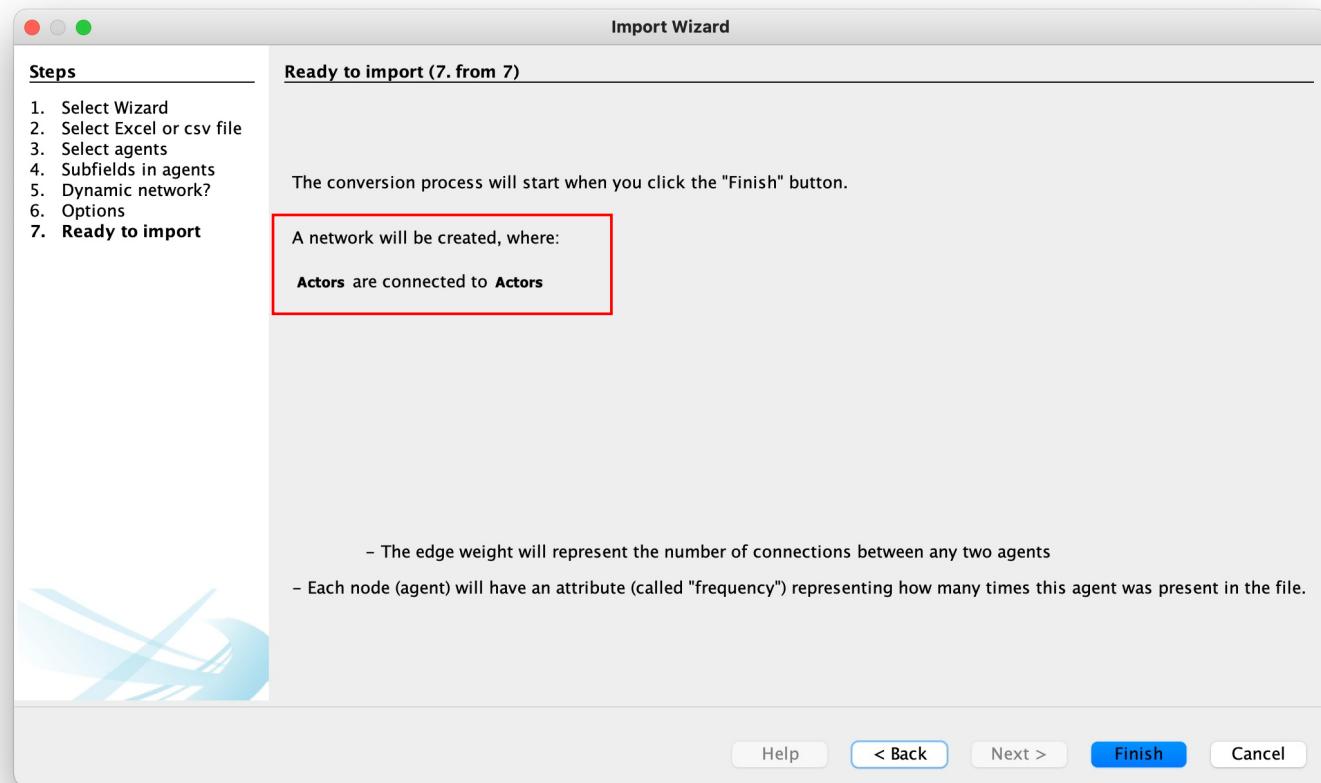


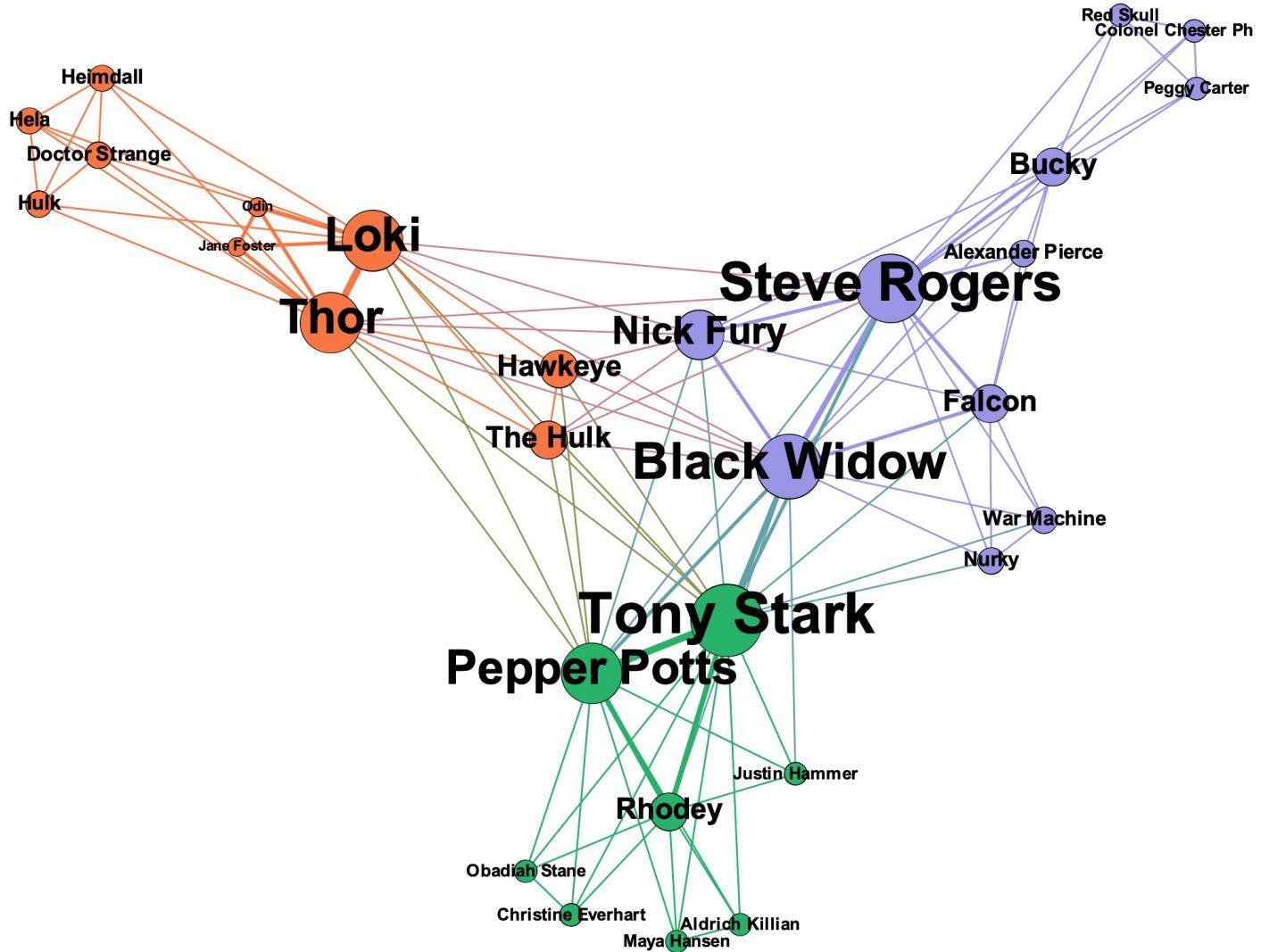


To establish the co-actor network (the unimodal network), select the same type of agent in both column



Tick to create links within the same agent (here means collaborations within actors)





Co-Actor Network
Who is more popular/important?