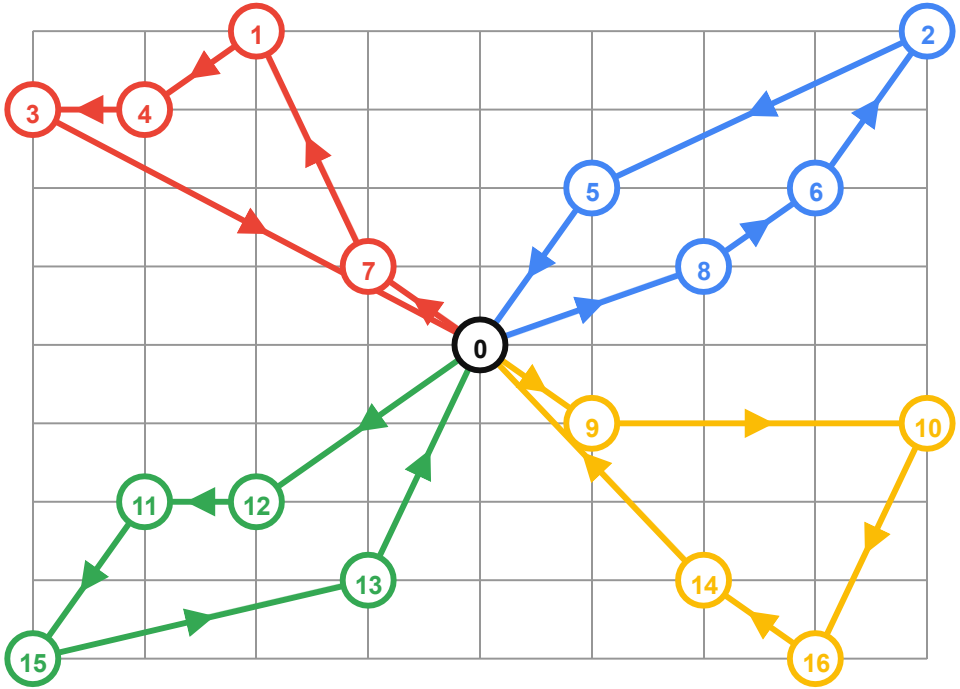
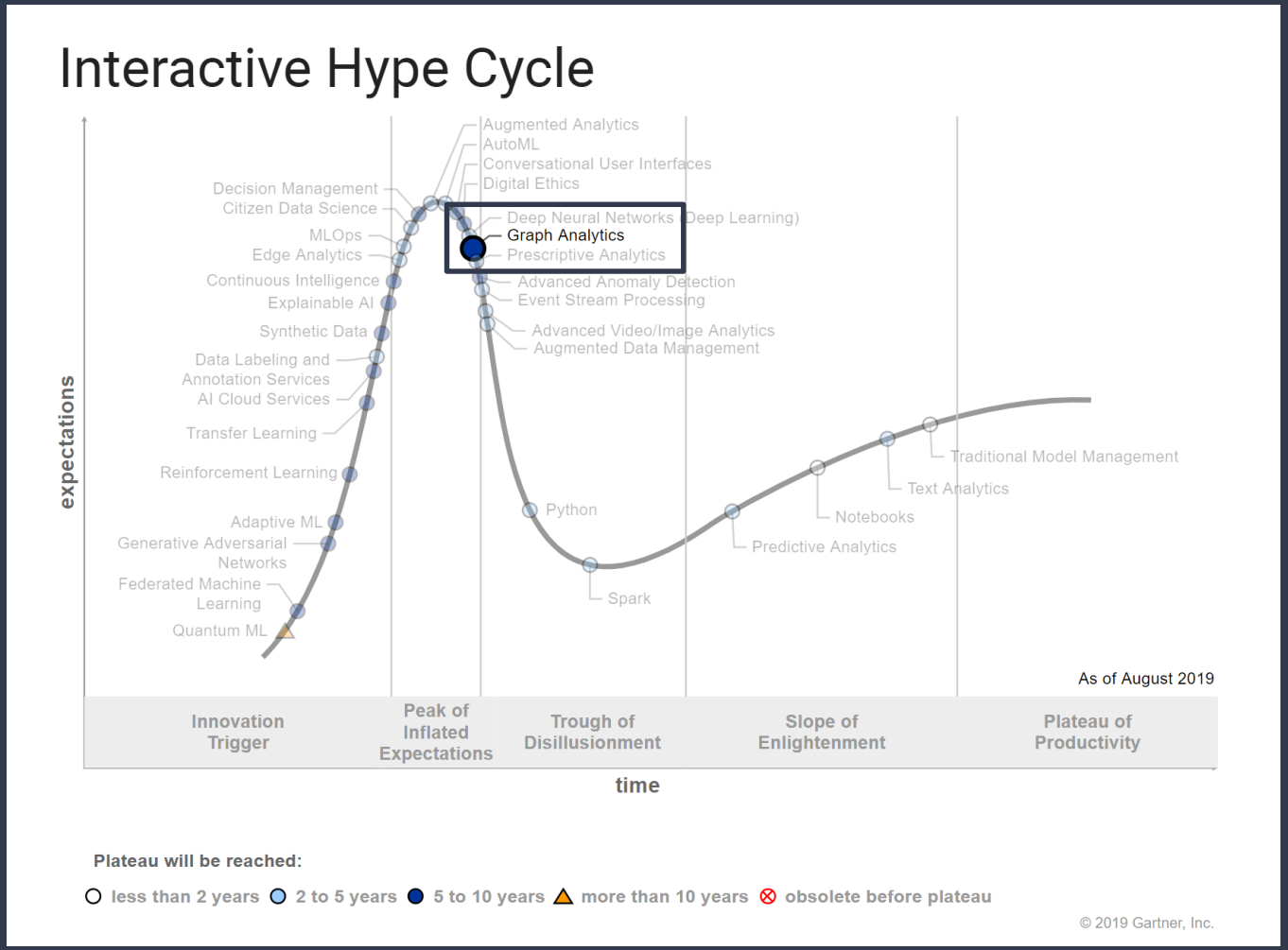
Employee Relationships in an Organization

Analysis using Graph Theory

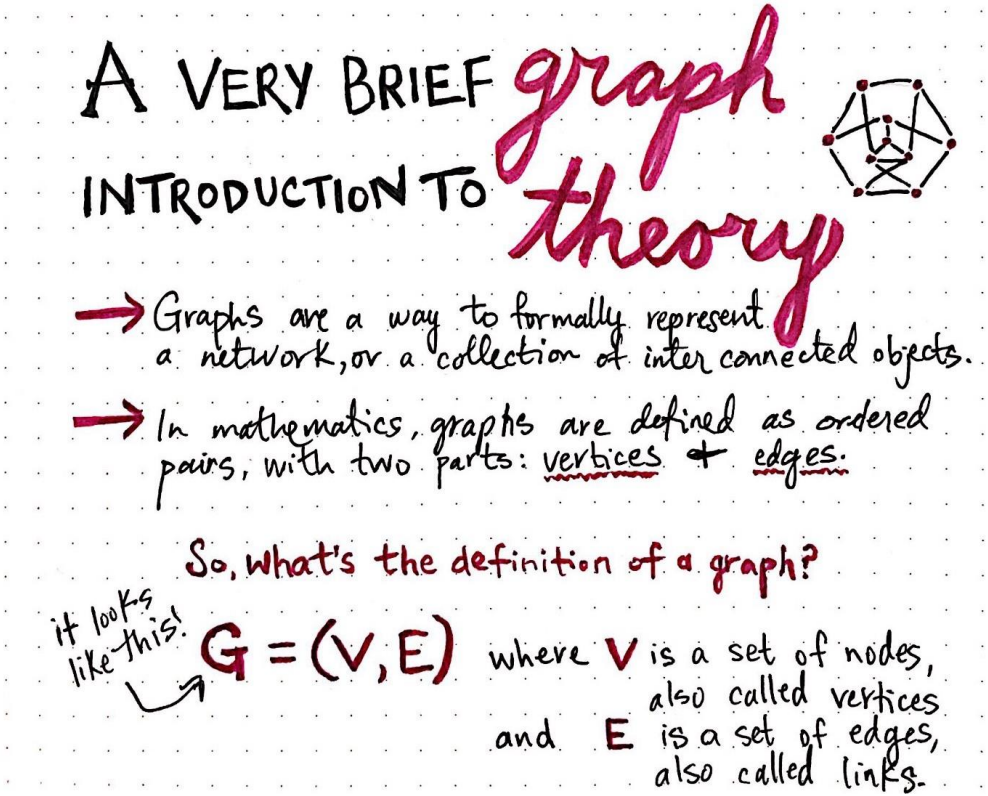
Optimization Challenge: Python

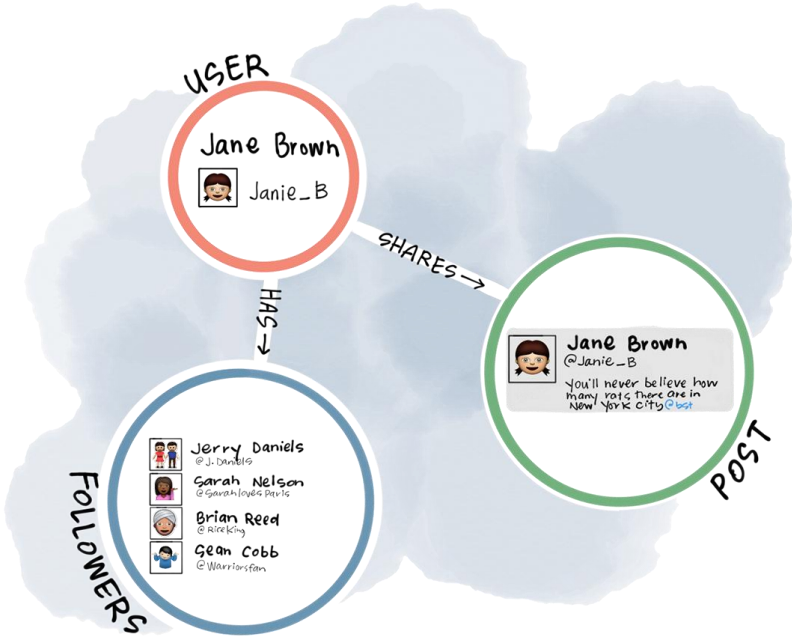


Gartner Hype Cycle

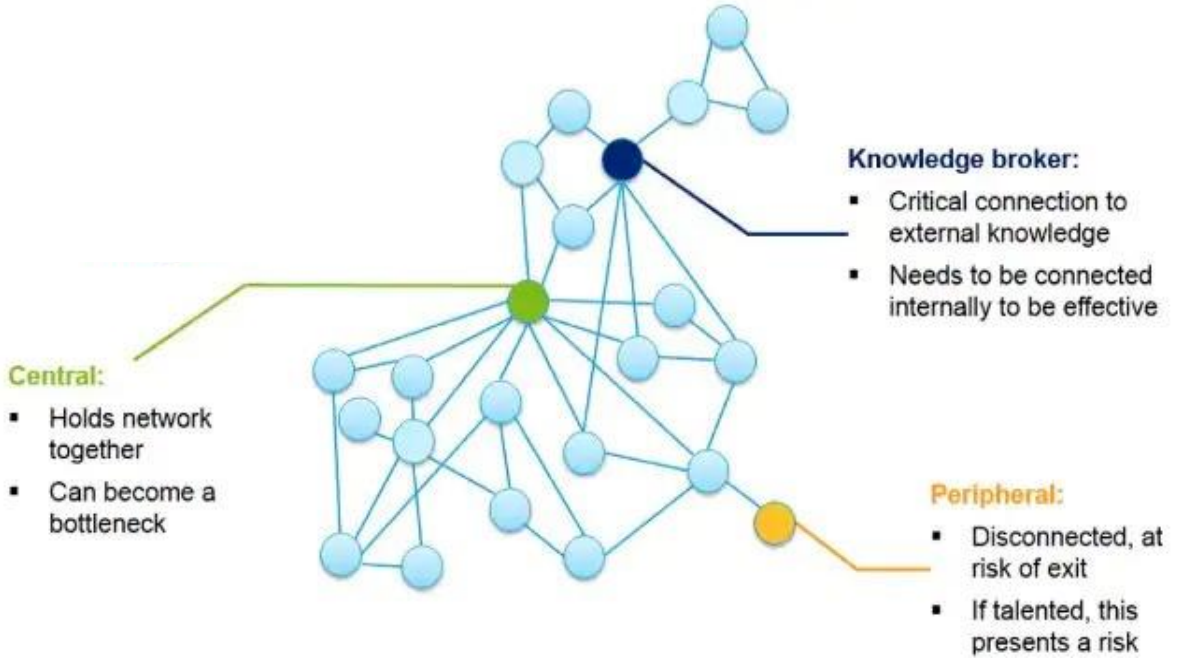


What is Graph Theory?



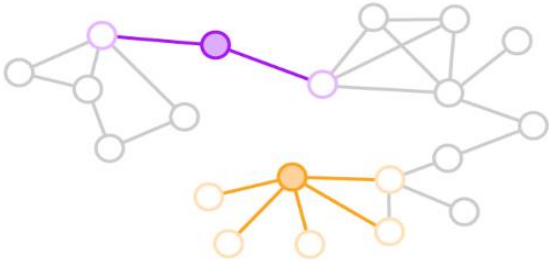


Organizational Network Analysis



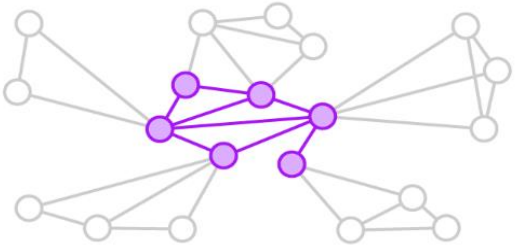
https://www2.deloitte.com/us/en/pages/human-capital/articles/organizational-network-analysis.html

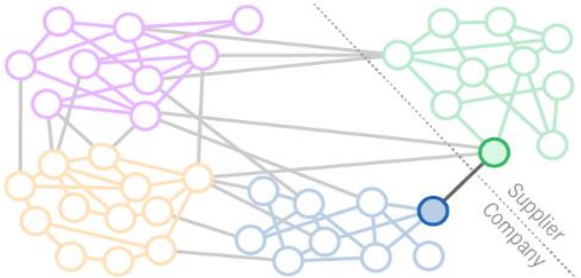
Examples



Which employee will change others' behavior?

Which teams will innovate effectively?





Which employees the organization cannot afford to lose?

https://hbr.org/2018/11/better-people-analytics

Our Project - Trends Marketplace

Data Collection & Transformation

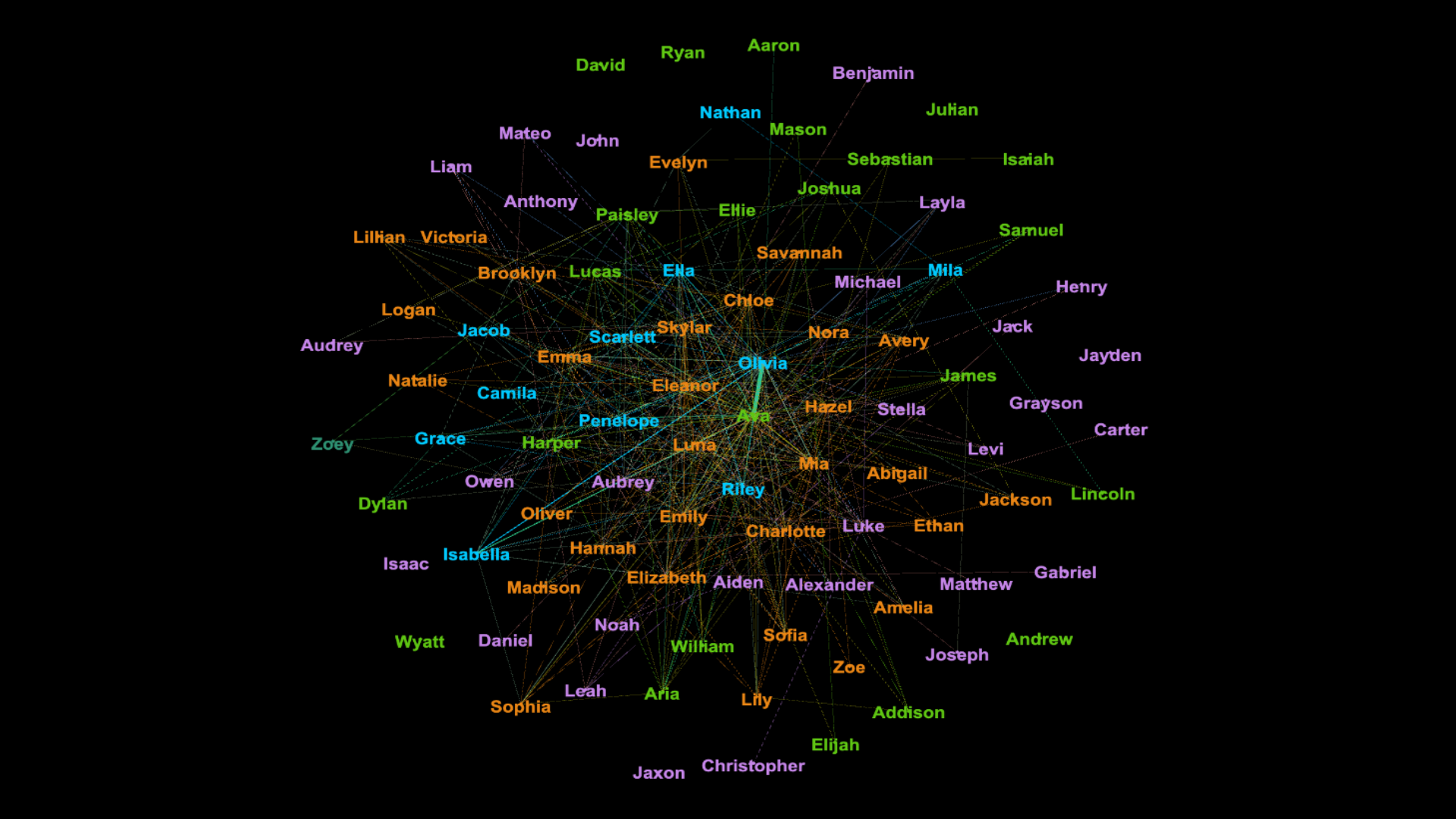
- **Nodes** - MSBA Students
- **Edges** - Conversations on Carlson WhatsApp Group
- **Attributes** - Nationality

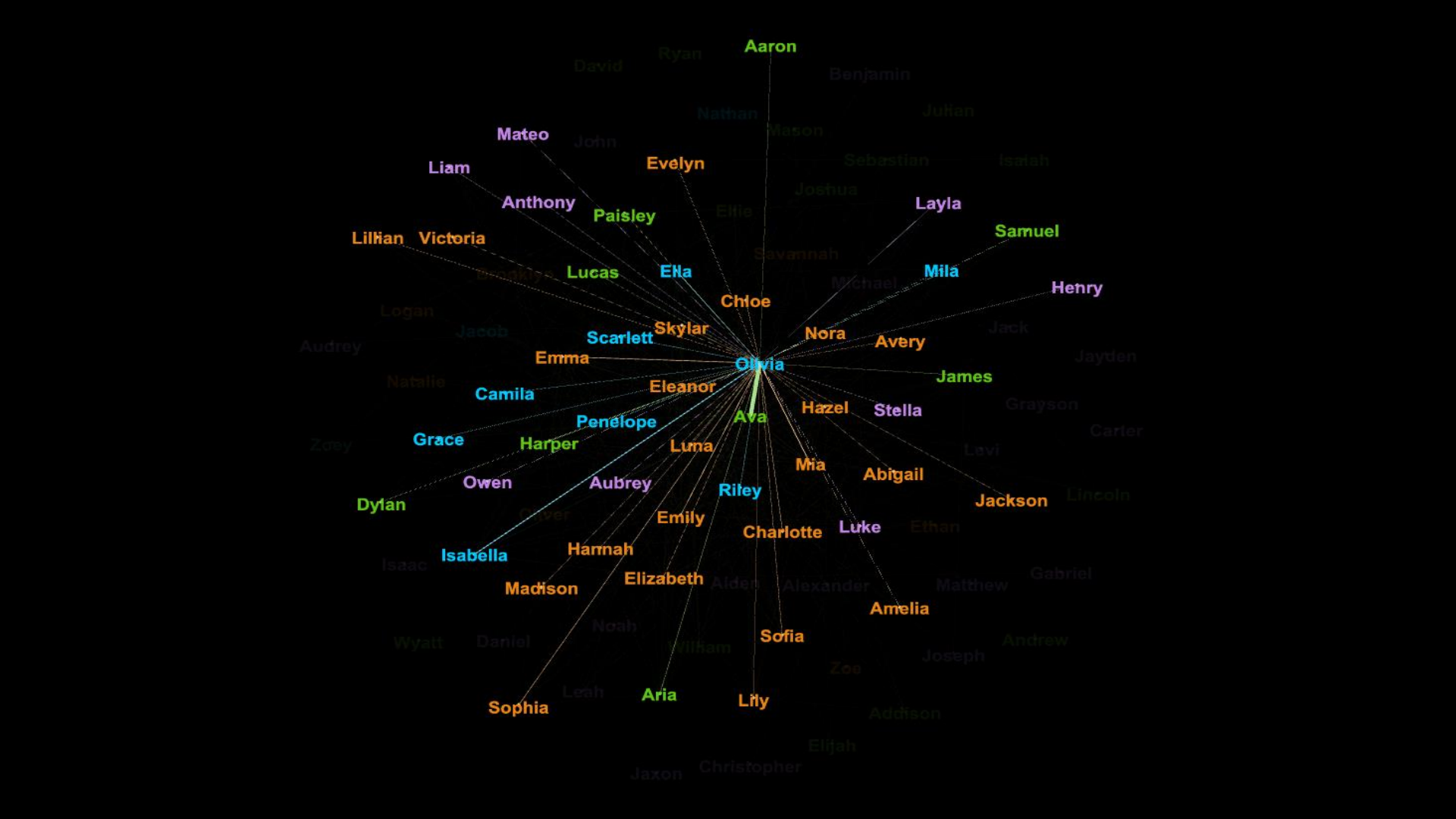
Create using NetworkX

- Assign weights to edges according to the number of messages
- Categorize nodes by attributes

Visualize using Gephi

- Validate intuitions
- Find new insights and analyze relationships


David
Ryan
Aaron
Benjamin
Nathan
Julian
Mason
Mateo
John
Liam
Evelyn
Sebastian
Isaiah
Joshua
Anthony
Layla
Paisley
Ellie
Samuel
Lillian
Victoria
Savannah
Brooklyn
Lucas
Ella
Michael
Mila
Henry
Chloe
Logan
Jacob
Skylar
Nora
Jack
Audrey
Scarlett
Avery
Emma
Jayden
Olivia
James
Natalie
Camila
Eleanor
Hazel
Stella
Grayson
Penelope
Ava
Carter
Zoey
Grace
Harper
Luna
Levi
Mia
Owen
Aubrey
Abigail
Riley
Jackson
Lincoln
Dylan
Oliver
Emily
Charlotte
Luke
Ethan
Isabella
Hannah
Isaac
Elizabeth
Aiden
Alexander
Matthew
Gabriel
Madison
Amelia
Noah
Wyatt
Daniel
Sofia
Andrew
William
Joseph
Zoe
Leah
Aria
Lily
Sophia
Addison
Elijah
Jaxon
Christopher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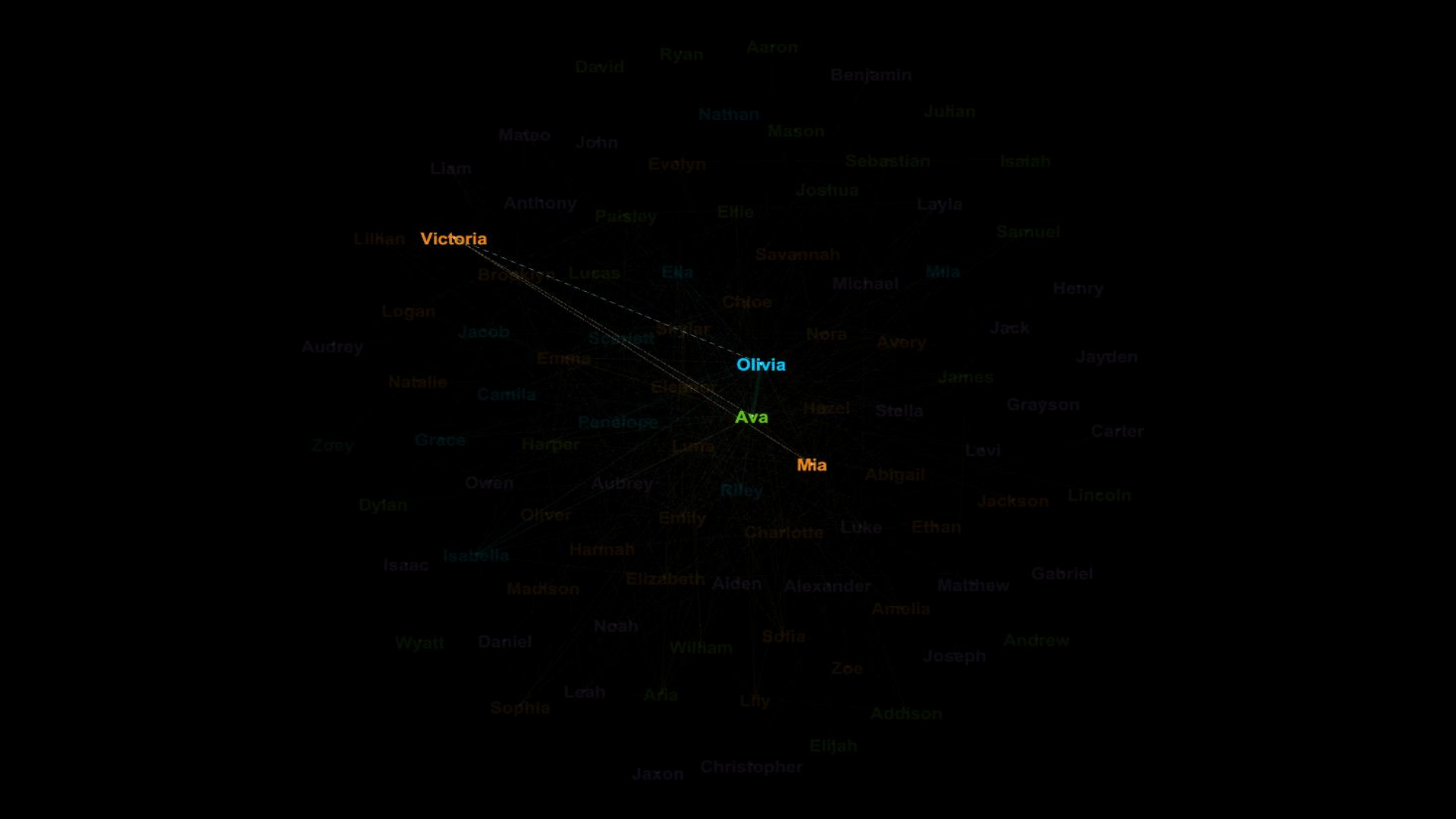
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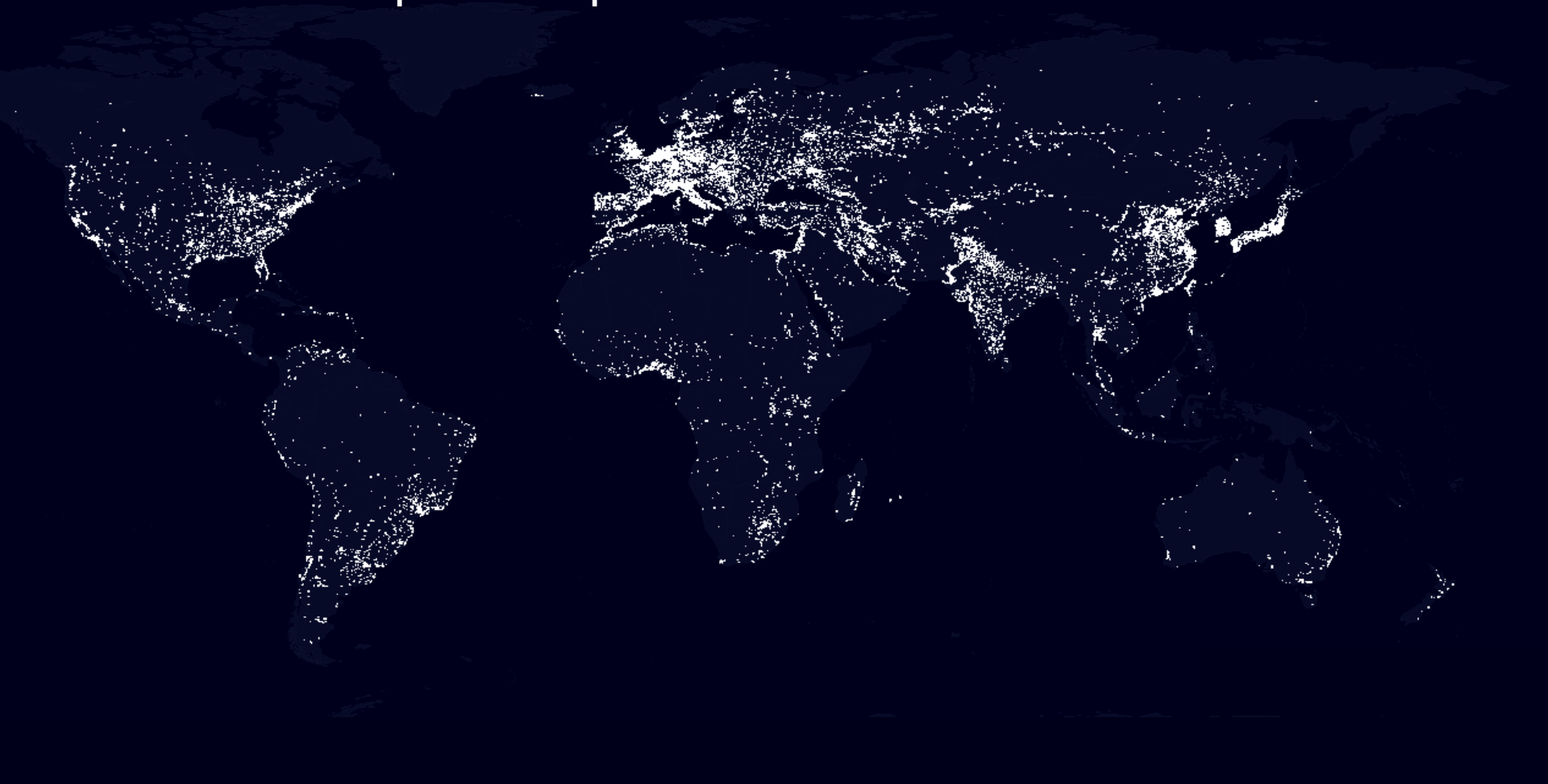
Olivia
Ava
Mia

A picture speaks a thousand words…



A picture speaks a thousand words…

…but a graph speaks so much more