Network Graph

library(tidyverse)

library(tidygraph)

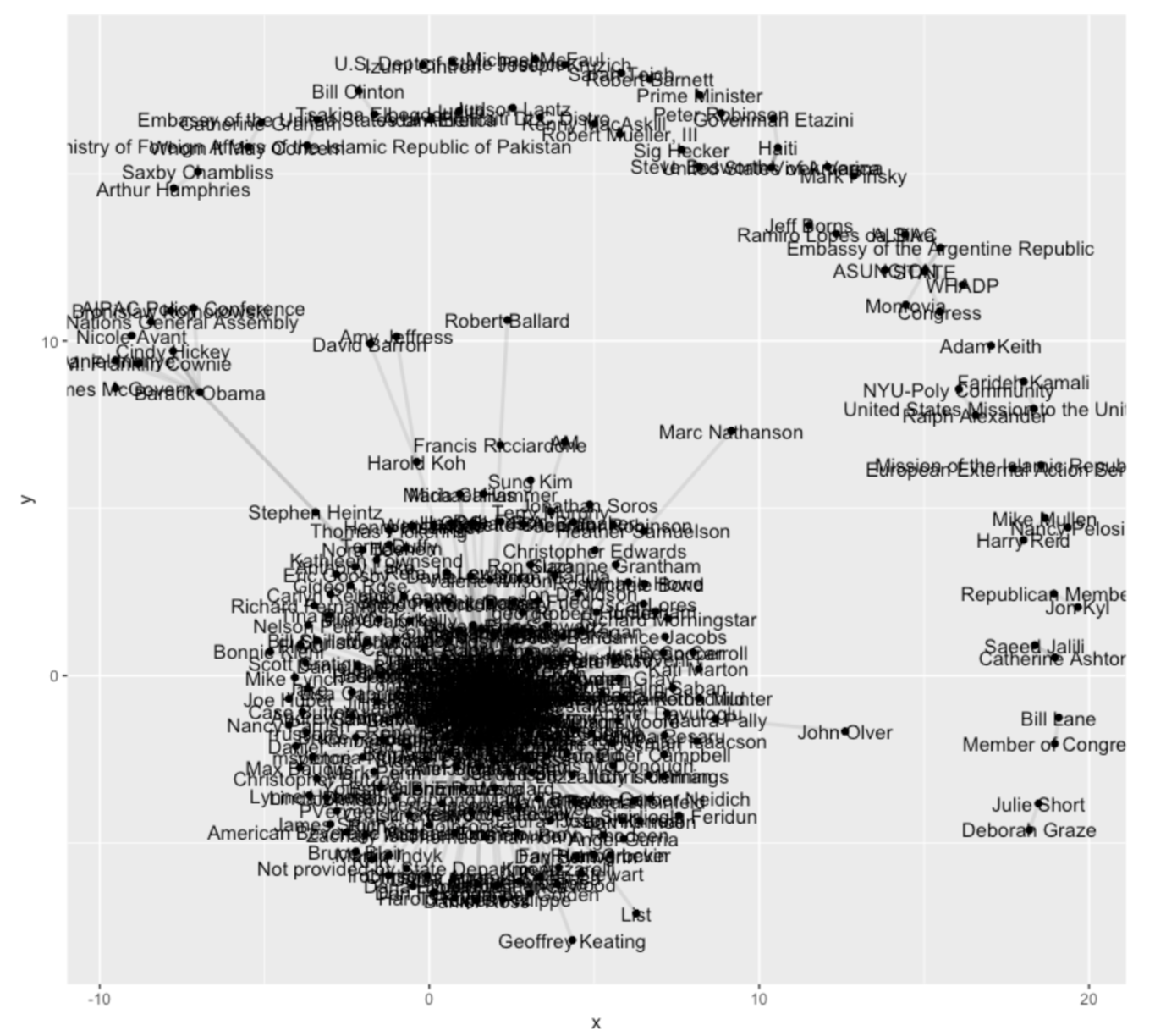
library(ggraph)

library(RCurl)

# Table

|  |  |  |  |
| --- | --- | --- | --- |
| … | from | to | … |
| … | … | … | … |

# Visualize Network

clinton\_emails %>%

as\_tbl\_graph(directed = FALSE) %>%

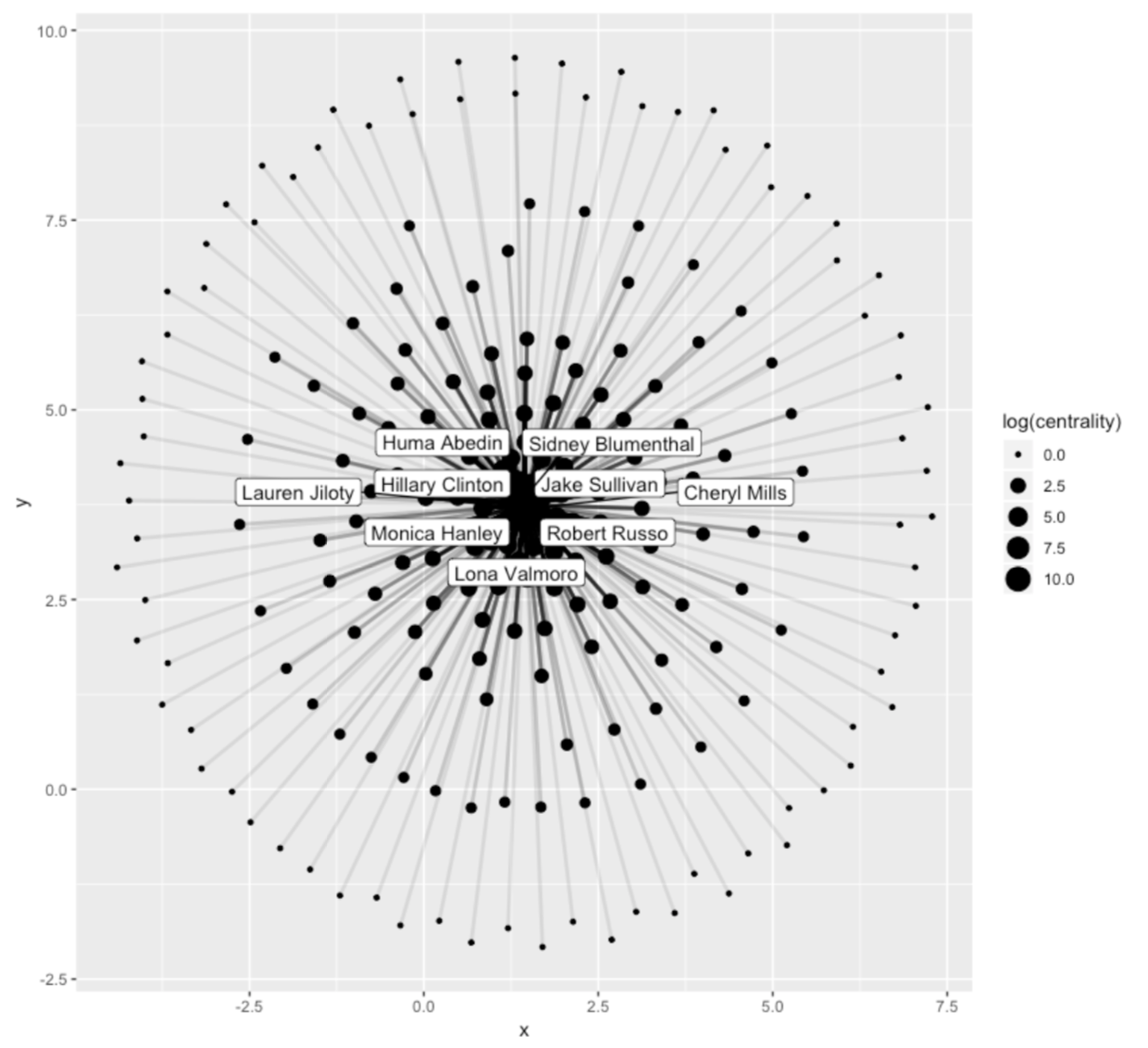
ggraph() +

geom\_node\_point() +

geom\_edge\_link(width = 1, alpha = 0.1) +

geom\_node\_text(aes(label = name))

# Centrality Degree



onlyClintonMails %>%

as\_tbl\_graph(directed = FALSE) %>%

mutate(centrality = centrality\_degree()) %>%

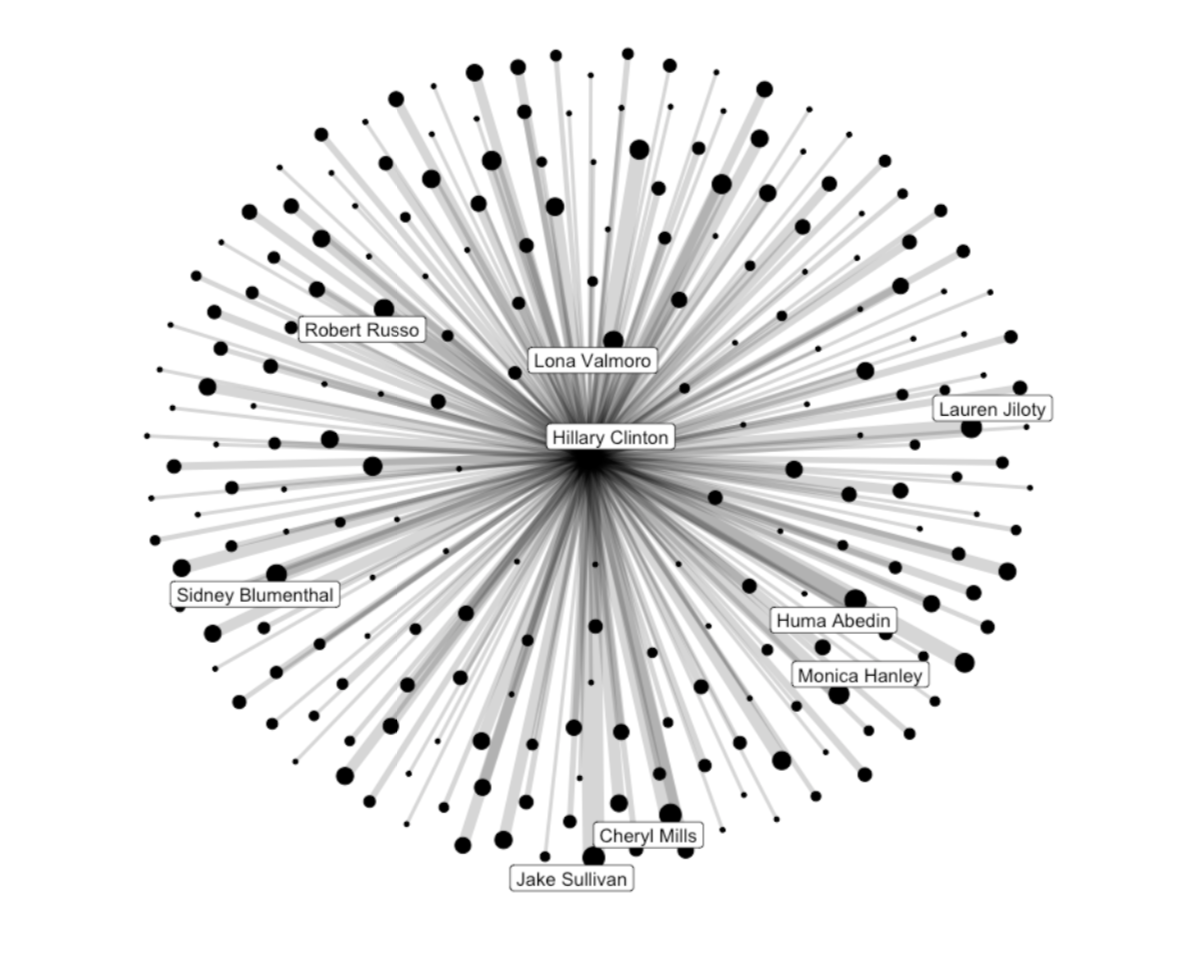
ggraph() +

geom\_node\_point(aes(size = log(centrality))) +

geom\_edge\_link(width = 1, alpha = 0.1) +

geom\_node\_label(aes(filter=centrality>=500, label=name), repel = TRUE)

# Edge-Width



## Count Interactions

|  |  |  |
| --- | --- | --- |
| Hillary Clinton | Contact | count |
| … | … | … |

clinton\_emails %>%

group\_by(to, from) %>%

summarise(count = n()) %>%

mutate(contact = if\_else(to == "Hillary Clinton", from, to)) %>%

arrange(desc(count)) -> contacts

## Merge Data

|  |  |  |  |
| --- | --- | --- | --- |
| From | To | Contact | count |
| … | … | … | … |

clinton\_emails %>%

mutate(contact = if\_else(to == "Hillary Clinton", from, to)) %>%

left\_join(contacts) -> combinedData

## Plot

combinedData %>%

as\_tbl\_graph(directed = FALSE) %>%

mutate(centrality = centrality\_degree()) %>%

activate(edges) %>%

filter(!edge\_is\_multiple()) %>%

ggraph() +

geom\_node\_point(aes(size = log(centrality))) +

geom\_edge\_link(aes(width = log(count)), alpha = 0.1) +

geom\_node\_label(aes(filter=centrality>=500, label=name),

repel = TRUE)