Social Network Analysis

Not so much friend.

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Hackathon and mock system repositories at **@Mongoool** Tutorial repositories at Gitlab **@huseinzol05**. Meh.

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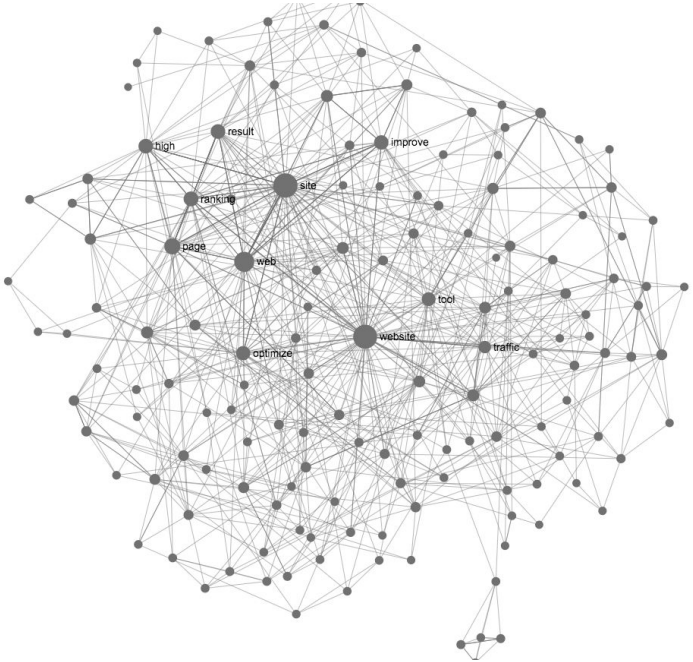
What is a social network?

Is a connected structure made up of a set of connected actors.

The social network itself provides a lot of method for analysing the structure itself and vastly give us a lot of information from the patterns in that structure.



What is a social network? (cont)

It required interdisciplinary consist of social psychology, sociology, statistics and graph theory.

The end study of those interdisciplinary called social network analysis to identify local and global patterns, identify influential entities, and examine network dynamics.

Common medium for social interaction

Why social psychology?

Use scientific method to understand and explain how the thoughts, feelings and behavior influenced by the others.

It required to study the impact on actors' edges, from understanding why certain 'negative' influencers attracted more attention and translate that 'why' into analyst perspective.

Why sociology?

Use scientific method to study human social relationships and institutions.

Sociology investigates the social causes and consequences of such things as love, racial and gender identity, political understanding, and religious faith.

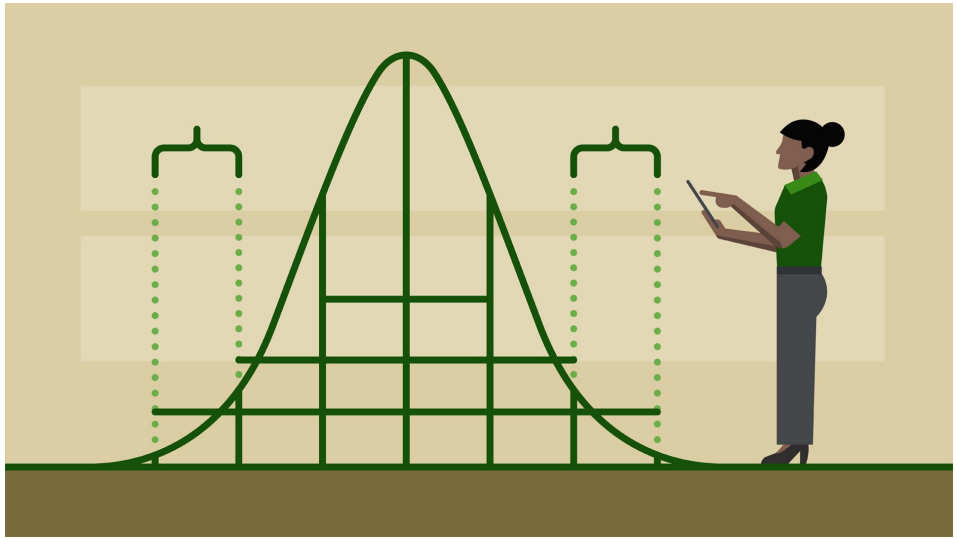
‘How much the impact if an influencer brings a religious issue?’

Why statistics?

To understand data!

A science of learning from data, measuring, controlling and accept-reject tolerance for uncertainty.

To improve our reasoning more into data-driven, fitted into certain circumstances based on critical hypothesis.



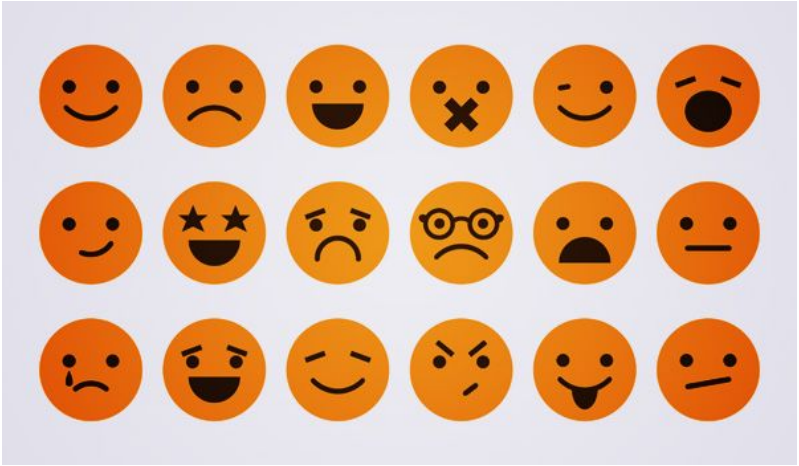
Why we do social network analysis?

1- we want social sentiment.

What happen if a famous person tweeted something bad about MaGIC.

How much the sentiment impact to his social circle.

How long that sentiment impact will stay ‘whispering’ inside the social circle.

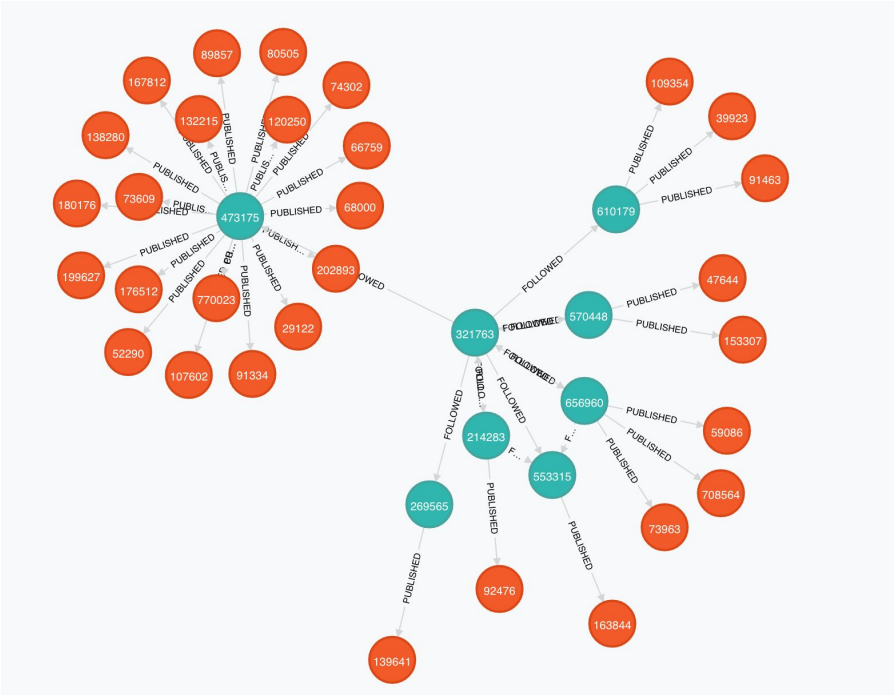


Why we do social network analysis? (cont)

2- related entities and keywords

We want to know what the most correlated entities related to certain trending issues.

So we can do better personal targeting ads to certain circles for certain reasons.



Why we do social network analysis? (cont)

3- feeding exaggeration

Who doesn’t love agendas and over stories, that are the most easiest to use to catch people attention.

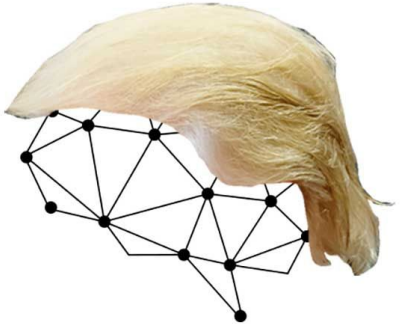
It purposely to interrupt certain social circles to make it more open into certain agendas.

Why we do social network analysis? (cont)

4- turning point / selling point

What else exactly the best thing in this world if you already know what some people want in their life?

You can make them trust you just a sudden snap, and they would do literally anything to get what you said.



Cambridge Analytica

Why we do social network analysis? (cont)

5- better business decisions.

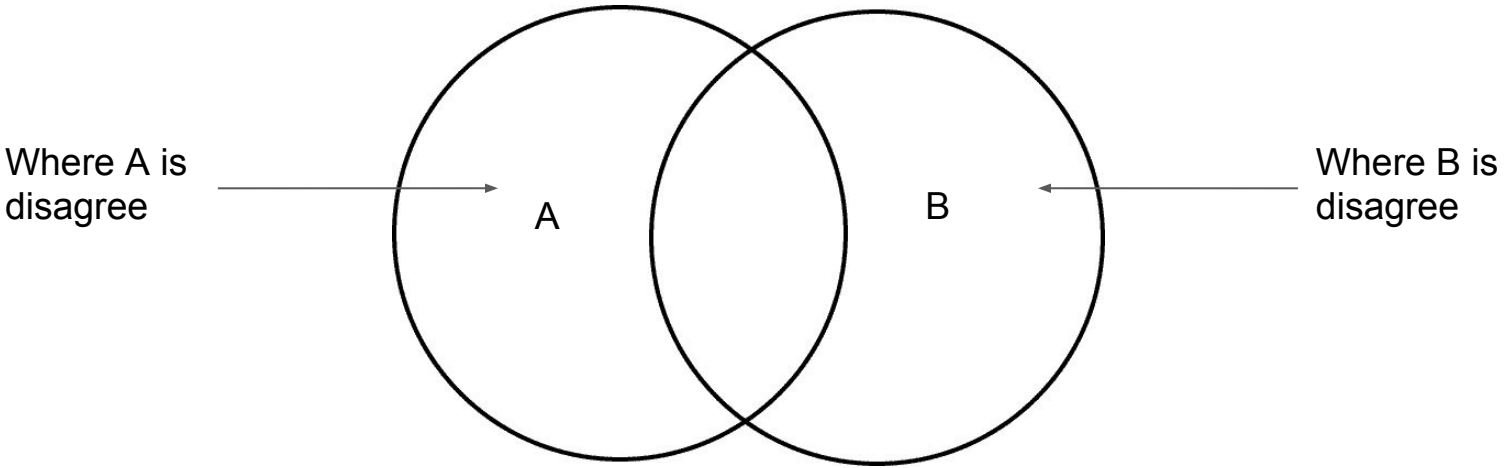
Social sentiment are very correlated with stock movement, volatility, and traded volume. We can use it to predict future movement.

Small sentiment level in a circle changes already can make a big impact on a stock market.

A methodological challenge

1- how much network sentiment we classified able to influence our next decision?

Rephrase, ‘how much you trust your computer calculated results’?

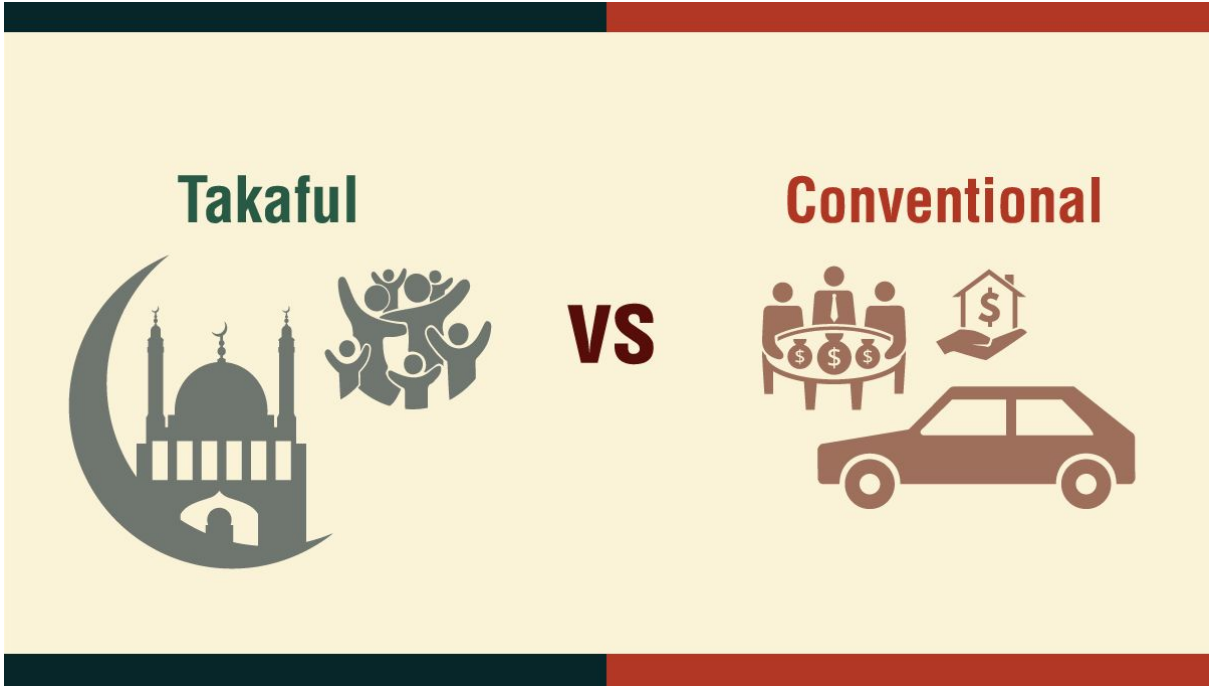


A methodological challenge (cont)

2- how much bouncing we caused?

Do people will actually change their decision to bounce to another party based on your computational result?

Or do you want people really bounce off based on your computational result?

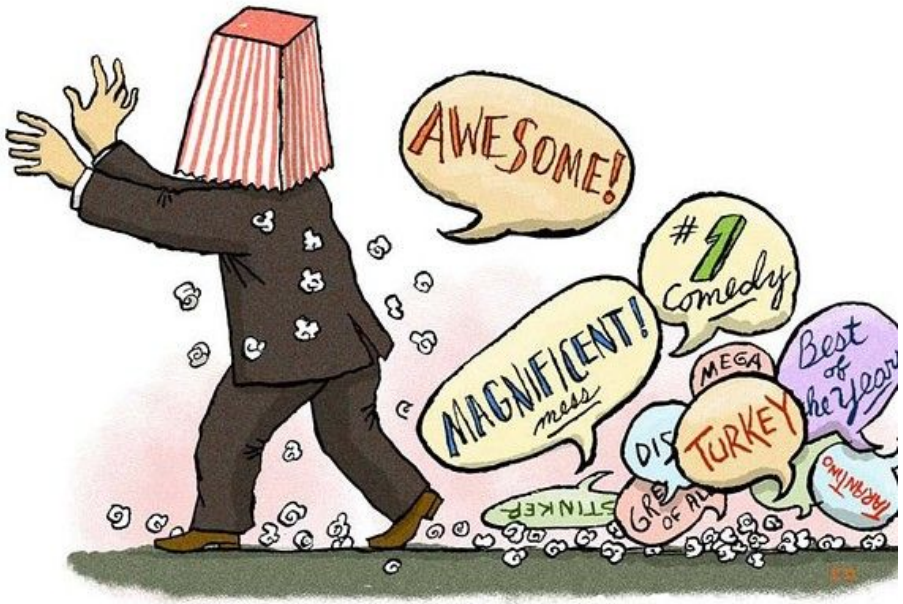


A methodological challenge (cont)

3- how much your data represented our true population?

We analysed in a closed world data assumption, is it our data is big enough to represent the whole population?

How big the data we able to manipulate to give an impact to our true population?



It is not about technical only

When drilling down to specific structures like social network, we cannot only throw techies or technicals to code AI for us without really understand it.

It is crucial that we work with sociologists, historians, psychologists, and expert domain to better understand the problems and create plausible solutions.

But today,

We are doing some coding in python to analyse simple datasets related about graph theory.