

# New algorithm for epidemic spreading simulation

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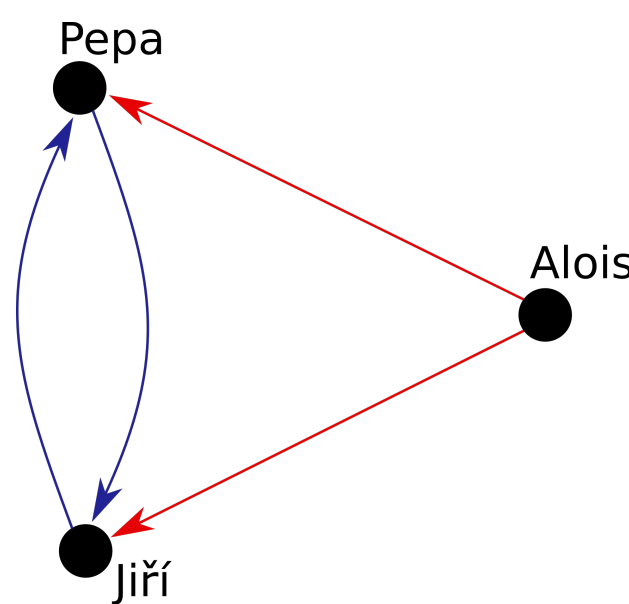
## Filter Bubble

Living in one’s own information environment.

- occurs on social networks
- caused by preferential algorithms
- first mentioned by Eli Pariser (2011)

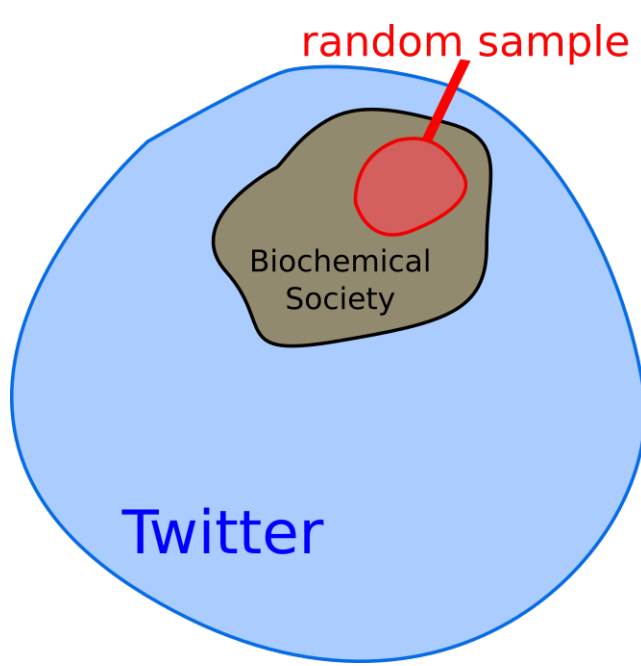
## Twitter

- microblogging platform
- **following, followers** system
- Twitter API is suitable data source



## Studied groups selection

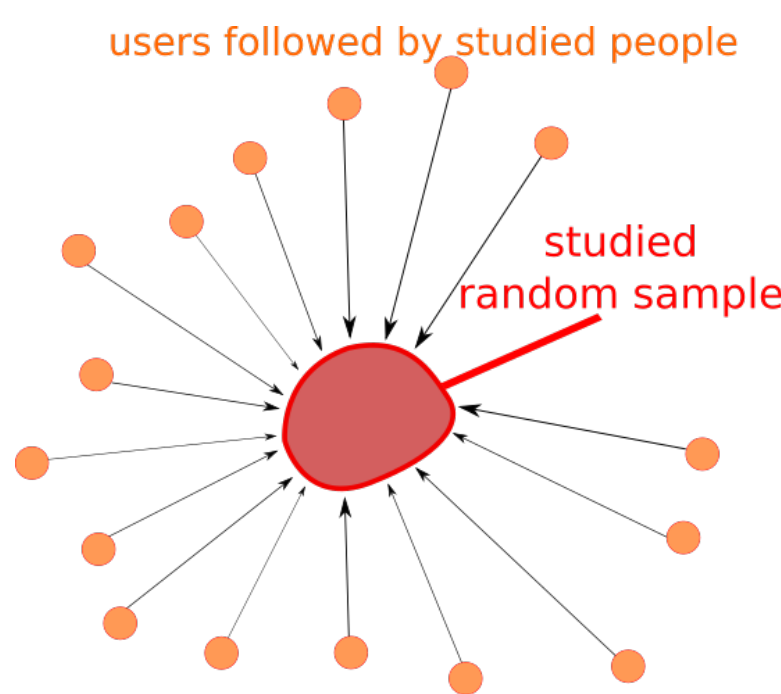
- random sample from followers of the significant group



Twitter → Biochemical Society →  
**studied people**

## Tweets collection

- analysing content affecting the studied people



- i. e. content from **followed people**

## Tweets filtering

- filter only tweets on given topic

Keyword "**Trump**":

- ✗ I had fish and chips for lunch.
- ✓ I’m glad Donald **Trump** is the president of the USA.

## Sentimental analysis

- measure sentiment of collected tweets
- **positive** vs. **negative** tweets

*Donald Trump is a terrible person.*  
(-14)

## Motivation

Threats for democracy:

content **homogeneity**  
↓  
loss of objectivity  
↓  
**radicalization**

Goals:

- filter bubble detection
- filter bubble quantification