

Analyzing Market Trends and Startups through Money Flow

Samhita Karnati
Advisor: Andrea LaPaugh

Motivation and Goal

- Can money flow be used to identify marketspaces?
- Do changes in money flow reflect what we qualify as pivotal events and pivotal startups?

Previous Work

Two categories

1. Market trends via economic analysis
 - a. Ex: many strategies and status reports from firms
2. Prediction using entity-specific data
 - a. Ex: M&A prediction

Approach

- Use startup data instead of macroeconomic information
 - Allows for entity-specific analysis
 - Extrapolate from details
- Focus on relationships defined by money flow
 - Quantitative
 - Ubiquitous

Overview of Plan

1. Dataset acquisition: Crunchbase
 - a. 466 thousand companies
 - b. Acquisitions, IPOs, funding rounds
2. Making the maps: NetworkX
 - a. Current and specific time maps
3. Analysis
 - a. Functions like clustering coefficient, centrality, etc.
 - b. Isolate affected nodes and compare measures

Rough Timetable

21-Oct	Make list of startups and events of interest
31-Oct	Create map for present day
18-Nov	Create maps for before and after events of interest
3-Dec	Analysis done
10-Dec	See if there is some way to visualize interesting maps
Remaining time	Write apper

Evaluation

- Check for tangible effects to the maps' structures to evaluate what we qualify as pivotal
- Check statistical significance for before and after “pivotal” events
- Is money flow the best way to quantify importance?