

[illegible]

4-6, 6-1, 7-6 (6); Beard Tomic (32),
\$23,778.14, Chris Buescher, Ford, 200, 86, 30,
19, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19,
(18), d. Jürgen Melzer, Austria, 6-3, 6-4; (32),
\$23,778.14, Chris Buescher, Ford, 200, 86, 30,
19, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19,
6-1, 6-3;
JIMEN'S SINGLES (second round) - Ana Ivancic,
\$23,778.14, 19, 19, 19, 19, 19, 19, 19, 19, 19,
6-3, 6-1; Sara Errani (11), Italy, d. Zhu Lin,
6-0, 6-0; Flavia Pennetta (15), Italy, 6-0,
6-0; 6-0, 6-0; 6-0, 6-0; 6-0, 6-0; 6-0, 6-0;
Germany, d. Roberta Vinci, Italy, 6-1, 5-7,
6-0, 6-0; 6-0, 6-0; 6-0, 6-0; 6-0, 6-0;
Croatia, Serbia, 4-6, 7-6 (2); Caroline Wozniacki,
\$23,778.14, 19, 19, 19, 19, 19, 19, 19, 19, 19,
5-7, 8-0 \$21,745.25, Blake Koch, Toyota, 197,

vs. 150 rating. 0th, Toyota, 200. rick, Chevrolet, in Dillon, Chev-Erik Jones, Toyoy Dillon, Chev7. Chase Elliott, 108. S. Brendan, 36, \$27,895. 100, 98.2, 35. Chevrolet, 200. Suarez, Toyota. Scott Sadler, Ford

90, 79.4, 31.
d, 200, 86.30,
Jr., Ford, 199.
Clements, Chev-
17, Ryan Sieg,
41, 18, Dakota
5, \$22,539, 19,
19, 66.5, 25,
a, 197, 66, 24,
197, 64.9, 23,
1, 197, 56.7, 22,
Chevrolet, 197,

Final Report

DO, 79.4, 31.
rd, 200, 86, 30.
Jr., Ford, 199.
Clemons, Chev-
17. Ryan Sieg,
'41 '18, Dakota
1, 322, 539, 19.
19, 66.5, 25.
4, 197, 66, 24.
, 197, 64.9, 23.

Maraviglia

6-2, 6-3; Eugénie Bouchard (6), Canada,
Jane Hradkova, Czech Republic, 6-2, 8-9;
 Jürgen Jürgens (7), Germany, 100.0, 3-6;
 O. David Ferrer (8), Spain, d. Ivan Dodig,
 6-2, 6-3; Zvezdana Jekic (9), Croatia, 100.0,
 6-3; Maria de Borna Cortis, Costa, 6-3, 6-4; John
 (18), d. Jurgen Melzer, Austria, 6-3, 6-4;
 (19), d. Vukobratovic, Serbia, 6-3, 6-4;
 (20), d. Marcos Baghdatis, 6-1, 6-3.

Motivation

- RCOS project that is working on an app that displays news articles with differing viewpoints on the same theme
- There are sites that present opposing viewpoints for a theme – but they are hand selected
 - Thus it would be useful to have an automated system
- We used an in-depth theme extraction and sentiment analysis approach that created clusters of articles

Difficulties

- Limited number of daily AlchemyAPI calls
- Entities and keywords from AlchemyAPI very specific
 - Resolution is to add taxonomy data
 - Possible future resolution is to incorporate WSD
- Sentiment values from AlchemyAPI very generic (only options are Positive/Negative/Neutral and weight)
 - Resolution is to add emotion scores

Input and Output

Input

- Set of news articles

Output

- Graph of article relationships with edges quantified by weights:
 - Entities and Keywords
 - Taxonomy
 - Sentiment
 - Emotions

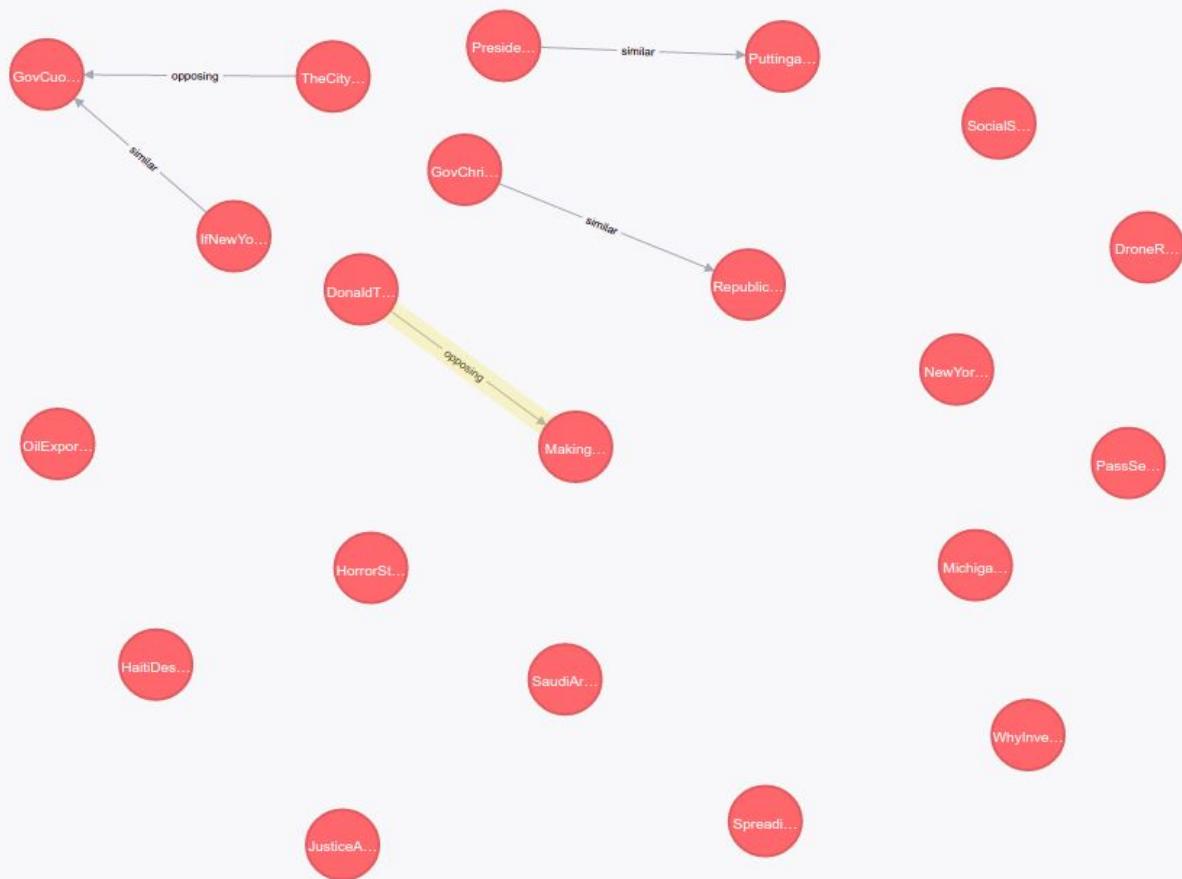
Experimentation

- Determine aggregation method and weighting scheme to combine data from multiple sentences into a single article score set
- Determine thresholds for comparisons between articles to maximize cluster quality

	Entites/Keywords	Taxonomy	Sentiment	Emotion
Threshold	0.06	0.25	0.12	0.12

*(25) **Article(25)**

*(5) **opposing(2)** **similar(3)**



opposing

<Id>: 27

taxonomy_weight: 0.2883652403482399

sentiment_weight: 0.2326019834503154

entity_weight: 0.0626937962113993

Node Data Example

- Detailed data from article nodes can be accessed through the interactive visualization

entities	\$40, 40-year-old law, texas, earnings, fuels, measures, greenhouse gas emissions, congress, solar energy, oil companies, climate harm, environmentalists, republicans, oil industry, important program, fund, demand, president, water conservation fund, friends, response, change, energy policy, crude oil, restrictions, land, current law, places, global supply, higher prices, country, industry, gasoline, wildlife refuges, export limits, natural areas, democratic lawmakers, place, time, businesses, barrel, example, profits, big swing] [(empty), ecology, natural gas, renewable energy, energy, business and industrial, diesel fuel, oil and gas prices, executive branch, investing, travel, government, legislation, tourist destinations, family and parenting, earnings, endangered species, national parks, wind energy, biology, oil, finance, food and drink, funds, company, zoology, nuclear power, hedge fund, stocks, solar energy, legal issues, science, law, govt and politics, pollution]
taxonomies	
title	OilExportsandRenewableEnergy

Discussion and Future Work

- Did not meet our stretch goal of organization viewpoint analysis

Plans

- Complete article-level named entity extraction and method for extracting organizational viewpoints
- Run tests on larger dataset
- Build fully interactive visualization tool for end users

Questions?