# Topic Modeling and Sentiment Analysis on News Articles and Comments

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#### SOCC: The SFU Opinion and Comments Corpus

All opinion articles + all comments

❖5 years: January 2012 − December 2016

❖ 10,339 articles + 1,280,454 comments

• 6,895,696 words(articles) + 77,238,179 words (comments)



#### Motivation

Create a succinct summary of opinions on articles to <u>help</u> organizations make better decisions.

#### To Do:

- Observe the change in hot topic for these 5 years (2012 2016).
- Discover the surrounding topics on comments under a given article.
- Discover the constructiveness/toxicity/sentiment for the comments under a given topic.

### Case Study

Home » Opinion



What drives anti-immigrant sentiment?

IAN BURUMA

Special to The Globe and Mail Published Saturday, Jan. 03, 2015 3:00AM EST Last updated Saturday, Jan. 03, 2015 3:00AM EST

Comments









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Ian Buruma is a professor of democracy, human rights, and journalism at Bard College.

The British shadow minister for Europe, Pat McFadden, recently warned members of his Labour Party that they should try to make the most of the global economy and not treat immigration like a disease. As he put it, "You can feed on people's grievances or you can give people a chance. And I think our policies should be around giving people a chance."

In a world increasingly dominated by grievances – against immigrants, bankers, Muslims, "liberal elites," "Eurocrats," cosmopolitans, or anything else that seems vaguely alien – such wise words are rare. Leaders worldwide should take note.

In the United States, Republicans – backed by their Tea Party activists – threatened to close the government down just because President Barack Obama had offered undocumented immigrants who have lived and worked in the U.S. for many years a chance to gain citizenship. The United

#### **Comments**

LOL! Good one.

Mass immigration is an environmental and social rolling disaster.

He should go to hell!

An impartial analysis would do much to dispell the misinformation and propaganda as well as establish the facts...

Since the mid 60's Canada has benefited tremendously form the immigration of well educated people from many countries who have contributed much over the years to the economic and social fabric of our country. These are folks whose costs of education and healthcare while they were growing up were borne by other countries but whose brains were drained to Canada for the benefit of our country. Sometimes we should set aside our xenophobic lenses and look at immigration matter from another perspective.

Positive

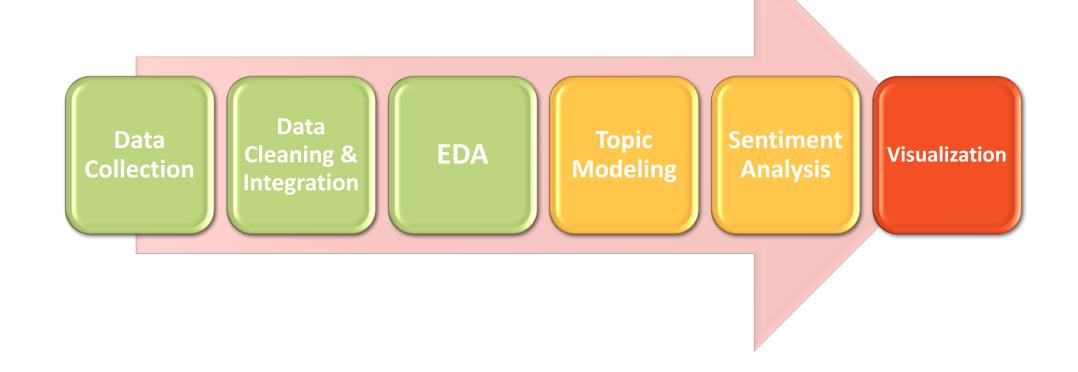
Negative

Very toxic.

Constructive

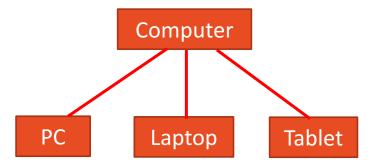
Education, Economic, Society

### Progress Report



#### Future Work

❖Improve Topic Modeling:



- Improve Models for sentiment analysis.
- Visualization

## Thank you!