



# Facebook Reactions: Who Cares?

- Aggregated user reactions = clues for **volume** and **sentiment** of public engagement with coverage
- Effect of entities – people, organizations, products, and geopolitical entities – measures readers' **gut response** to subjects of coverage

	Understanding Readership	Comparing Readerships
<b>Example Users / Use Cases</b>	<ul style="list-style-type: none"><li>• <b>Social media manager</b> for the source: maximizing revenue</li><li>• <b>Sponsored content</b> creator: capitalizing on readers' preferences</li></ul>	<ul style="list-style-type: none"><li>• <b>Marketing representative</b>: shopping ad blitz featuring a particular celebrity</li><li>• <b>Political campaign manager</b>: pursuing key endorsement</li></ul>
<b>Analytical Approach</b>	<p>Start with a <b>fixed source</b></p> <ul style="list-style-type: none"><li>• Explore patterns for an entity, <b>and/or</b></li><li>• Find entities who drive volume, or a certain sentiment, most strongly</li></ul>	<p>Start with a <b>fixed entity or set of entities</b></p> <ul style="list-style-type: none"><li>• Explore patterns by source, <b>and/or</b></li><li>• Find sources where volume, or certain sentiment, driven most strongly</li></ul>

**Looking for pure reaction to entities, so also controlling for extreme wording that affects reactions**

# A Multi-“Teared” Analytic Approach

## Data Source

Until live querying available, used publicly available data from February-June 2016

- h/t to GitHub user @minimaxir

## Modeling Approach

- **Recognize named entities** mentioned in each post
- Engineer features:
  - Entity-wise dummy variables
  - Sentiment of other words used
- Fit **regressions** to **predict reader reactions**:
  - One model for each combo of source / reaction



### Trump Designates North Korea State Sponsor of Terror

Pres. Donald J. Trump designates North Korea a state sponsor of terror: "Should've happened a long time ago."  
See Less



- Coefficients from each regression model yield:
  - Estimate of each entity's effect on reaction volume and sentiment
  - Effect of general **sentiment** in words of the post

