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Introduction
Introduction - Mine Your Own Business

- Understanding market structure
- Empirical Applications
- All comments are treated equally
- Is the data representative?
Motivation
28 Percent Of Americans Admit To Being Internet Trolls

10/20/2014 12:59 pm ET | Updated Oct 20, 2014
Offering five options: “debating issues that are important to you,” “chatting with others,” “making new friends,” “trolling others,” and “other.” Here’s how different responses about these Internet commenting preferences matched up with responses to questions designed to identify Dark Tetrad traits:

![Bar chart showing personality scores for different activities](chart.png)

Fig. 1. Dark Tetrad scores as a function of favorite online activity in Study 1. Error bars represent standard errors.
Motivation

- All comments should NOT be given equal weightage
- Reward best reviews
- Account for negative bias
- More accurate relationships between products and terms
- Increase in lift precision
What car should I buy' thread. Don't know what to buy? Post in here. (self.cars)

1650 miles later, I am minus one STI and plus one Lotus. (self.cars)

My 1985 Ford Escort XR3 Convertible (self.cars)

The Worst Car Names In History (dimegeek.com)

Saw a really cool rare old Lincoln I thought you guys might like (self.cars)

Flit Reveals US-Spec Version of 124 Spider (via Sniff Petrol) (sniffpetrol.com)
Approach
Approach

- Rank the comments
  - User characteristics
    - Link Karma
    - Comment Karma
    - Reddit Gold
  - Comment posting time
  - Comment rating
- Rank boosting [Drakihsu, Khabiri, Caverlee '09]
- Only look at top 70% of the comments
Impact of Comment Posting Time

Fig. 4. Comment posting time (by position) versus comment community rating. We report the mean comment rating +/- one standard deviation.
Rank Boosting

Original Position

A: 100
B: 40
C: 30
D: 98

Original Ranking

A: 100
D: 98
B: 40
C: 30

Boosted Ranking

D: 102
A: 79
B: 23
C: 16
Evaluation
Evaluation

- Recommendation System
  - Based on both approaches
  - Model-Term data analysis
- Ask users for feedback on relevance of results
- Check if our approach returns more relevant results
  - Precision@10
Thank You