Political Leaning Classification

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Professor

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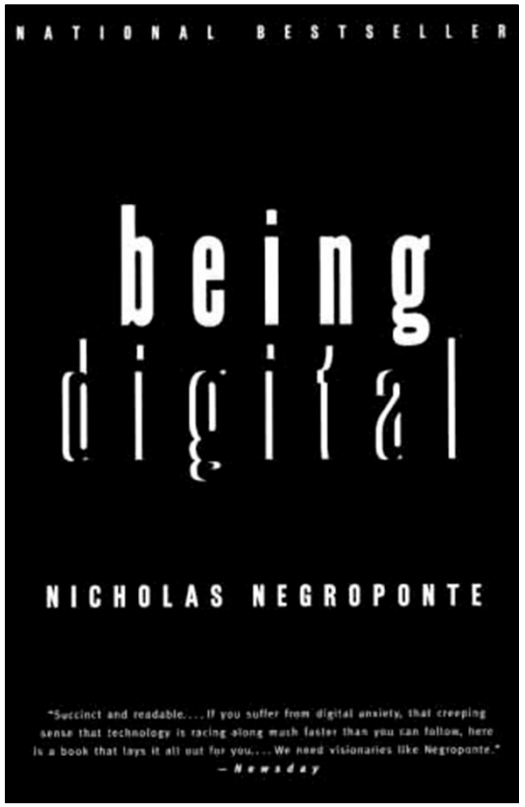
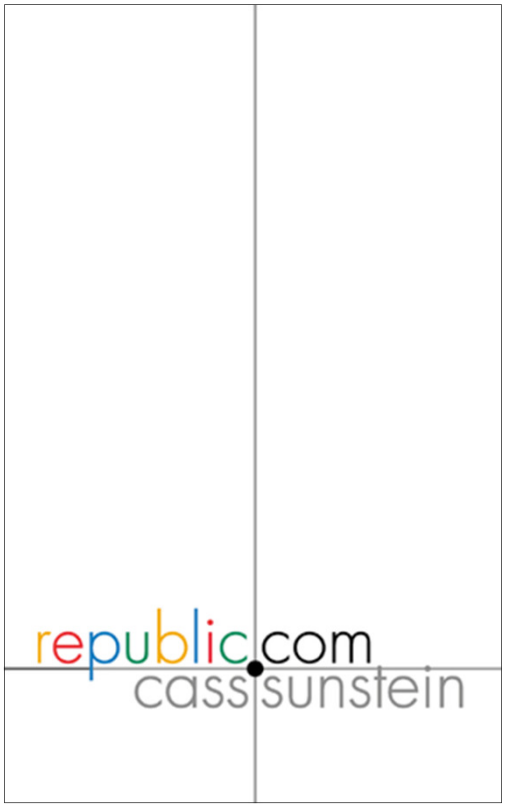
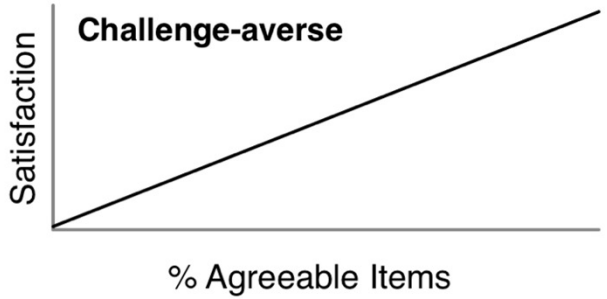
Internet as Echo Chamber?



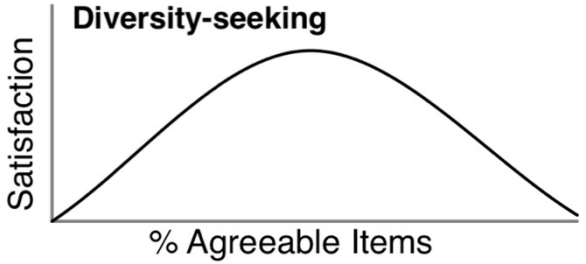


Competing Hypotheses about Selective Exposure

CHALLENGE AVERSION. People prefer material that supports their opinions and avoid challenging information. Predicted by *selective exposure theory*. Sears & Freedman 1967, Zillmann & Bryant 1985, Frey 1986, Donsbach 1991



DIVERSITY SEEKING. People prefer information that contains both challenging and supporting opinions.

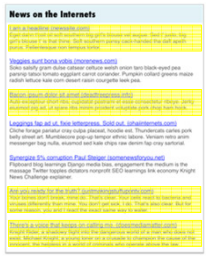


Research Goals

- Understand
  - Which hypothesis is right?
- Improve
  - Can we nudge people toward balanced exposure?

Experiment for Understanding

- Show people with known political biases list of links with varying percent of agreeable items
  - Subjective assessment of each list



with Sean Munson, CHI 2010

Nudging

- Two Chrome Extensions

CubeThat News Recommender

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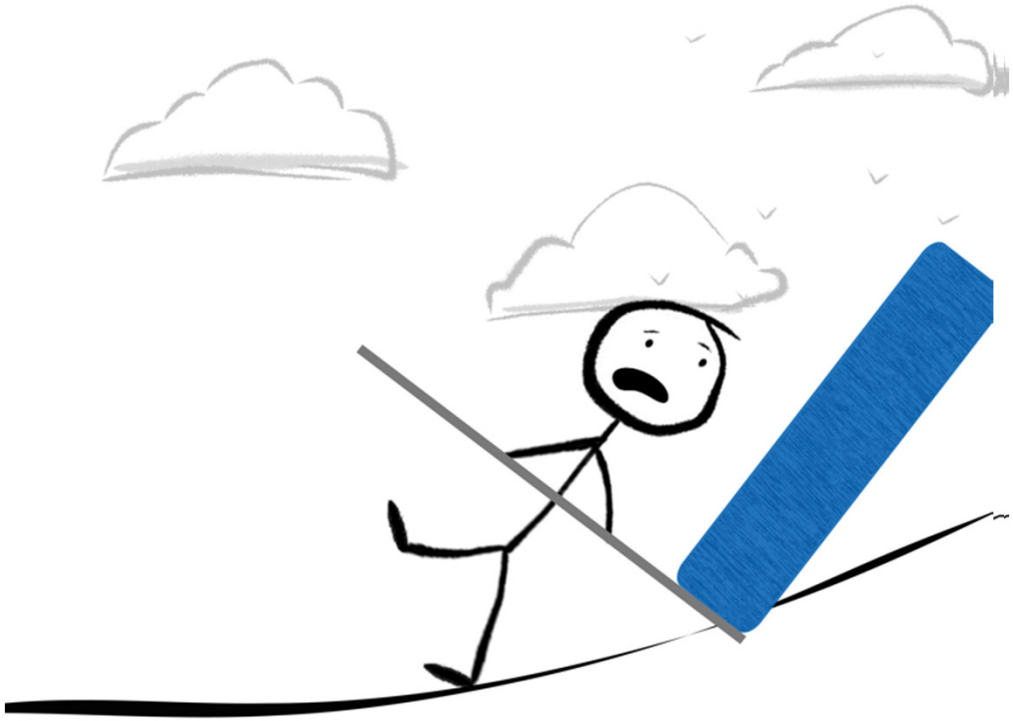
with Siddharth Chhabra

Balancer Feedback



Pre-requisite

- Classify Items

Approach: Semi-Supervised Learning

- Some items and users labeled (blue or red)
- Learn to label the rest
  - Based on text distances between items
  - Based on relationships
    - user to item votes
    - items from same source
    - items linked to from same blog
    - user to user friend/follower links

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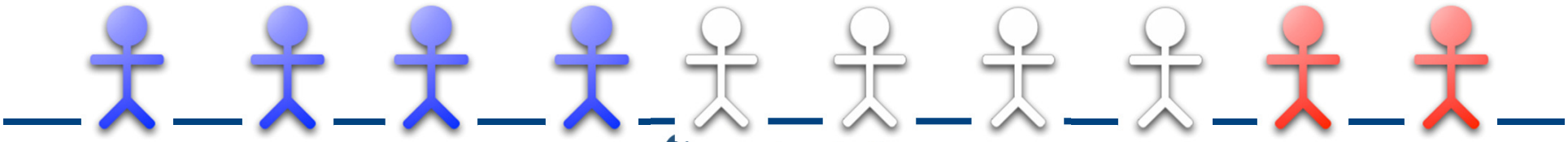

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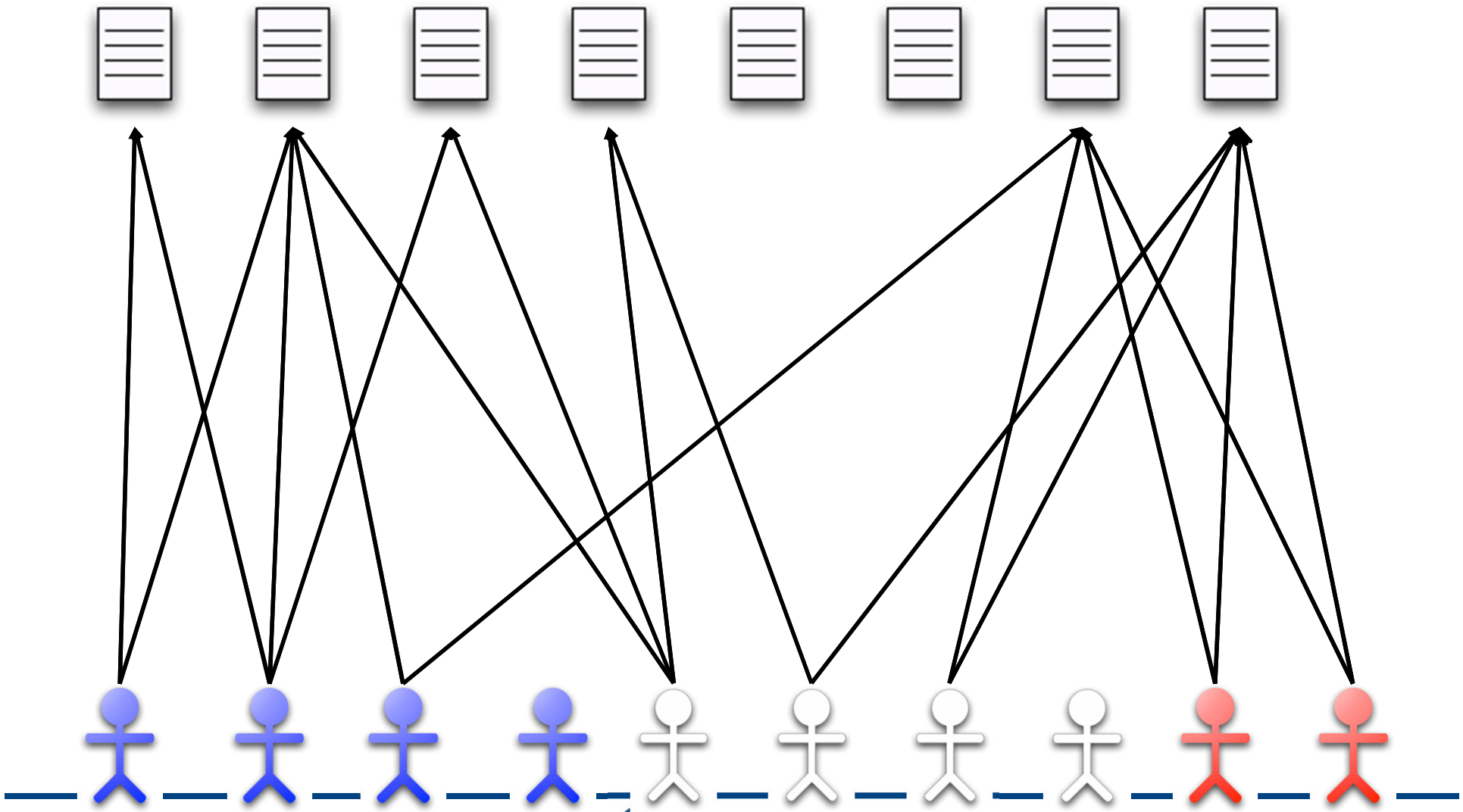

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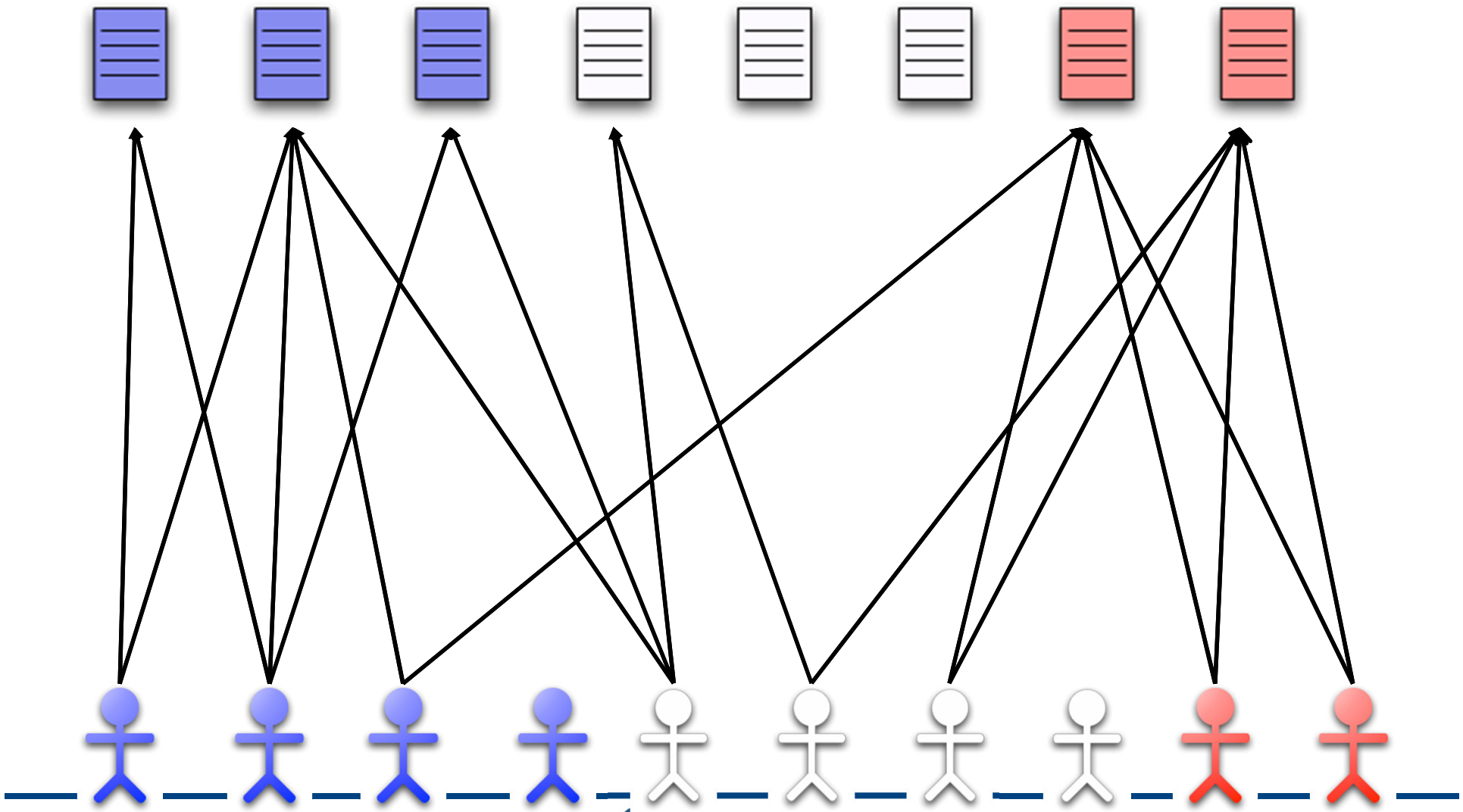

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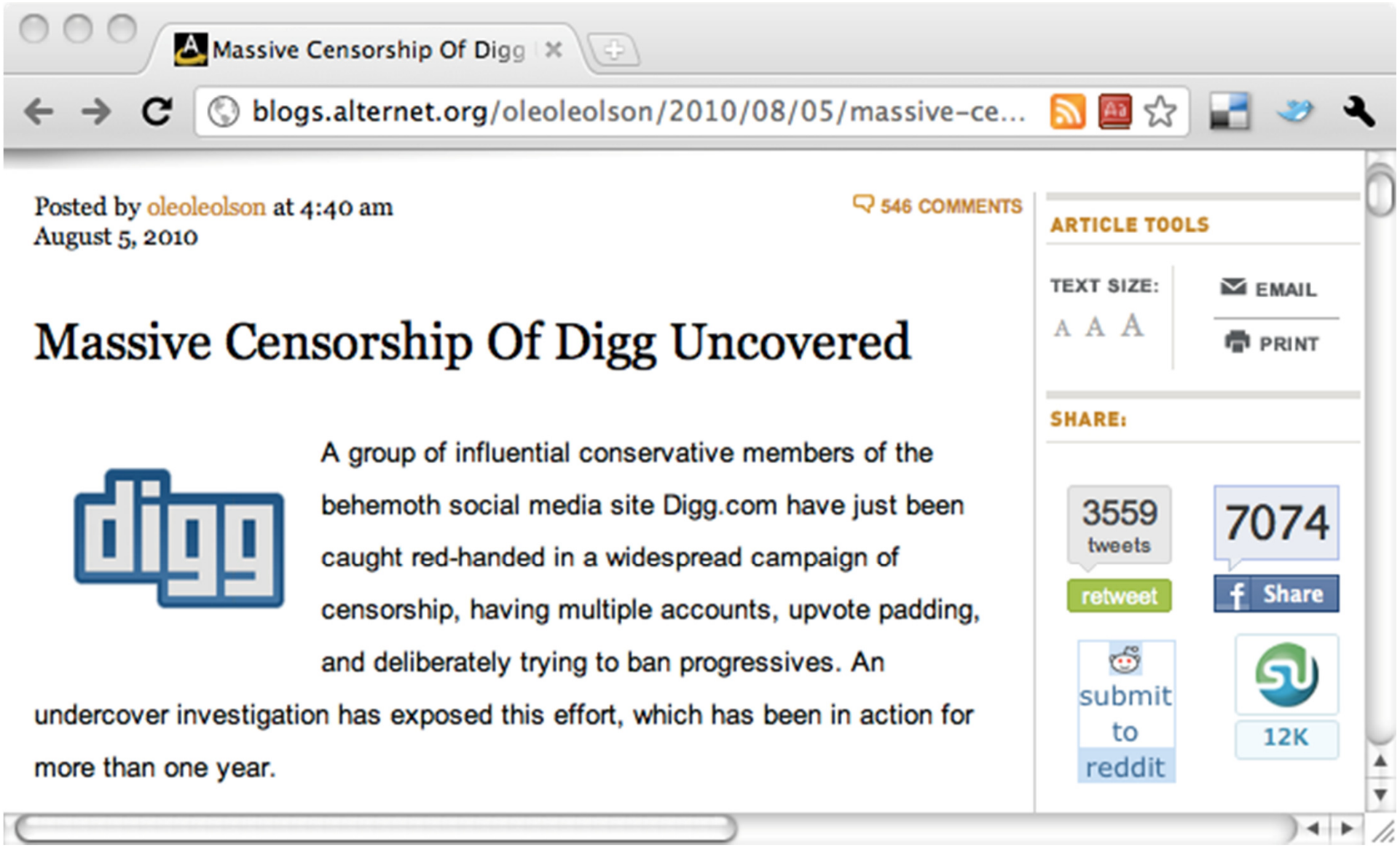
Massive Censorship Of Digg
blogs.alternet.org/oleoleolson/2010/08/05/massive-ce...
Posted by oleoleolson at 4:40 am
August 5, 2010
546 COMMENTS
ARTICLE TOOLS
TEXT SIZE:
A A A
EMAIL
PRINT
SHARE:
3559 tweets
retweet
7074
Share
submit to reddit
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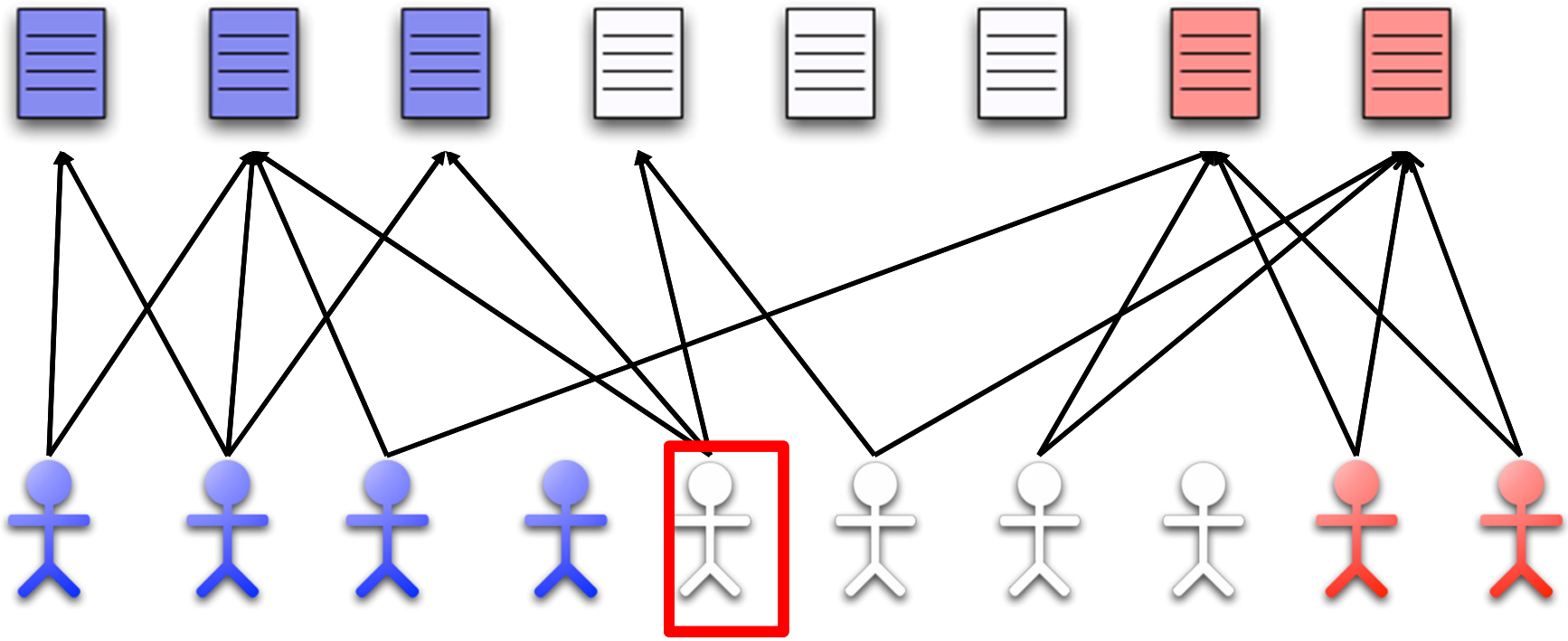
Massive Censorship Of Digg Uncovered
A group of influential conservative members of the behemoth social media site Digg.com have just been caught red-handed in a widespread campaign of censorship, having multiple accounts, upvote padding, and deliberately trying to ban progressives. An undercover investigation has exposed this effort, which has been in action for more than one year.

Expanding Coverage By Propagation



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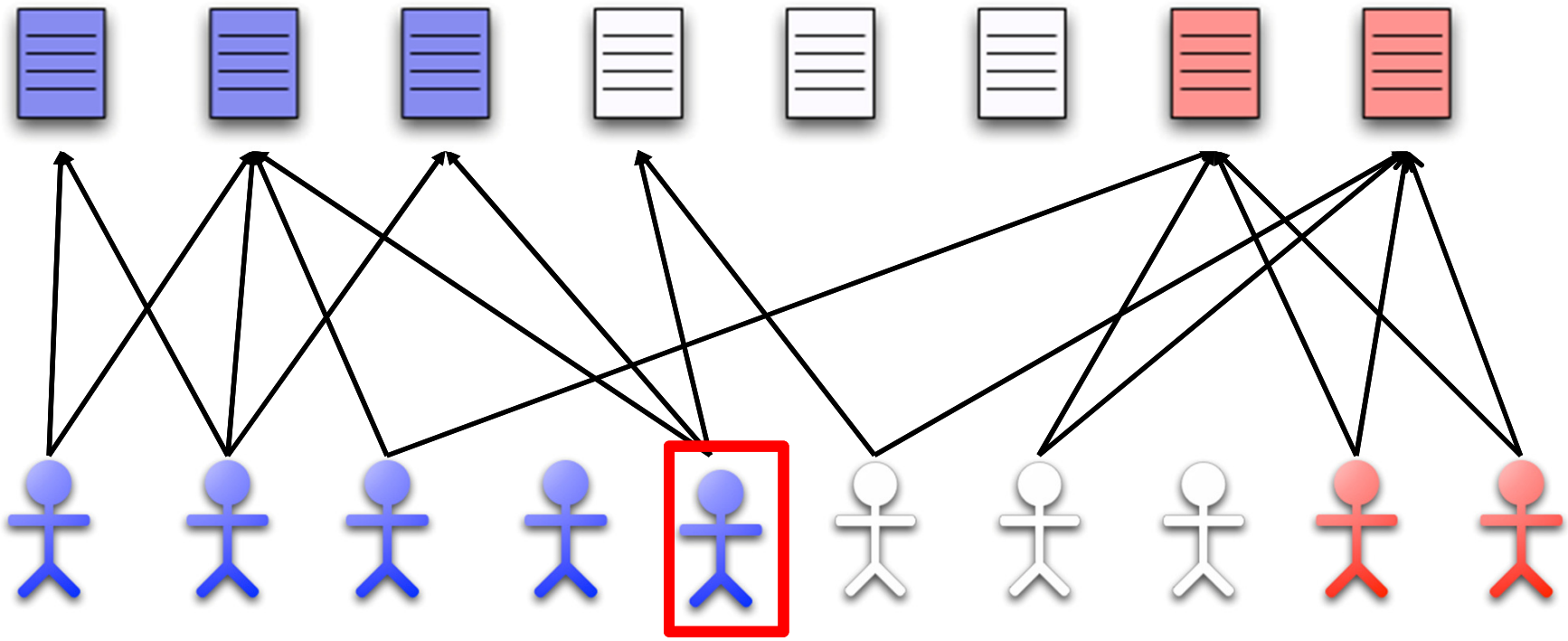

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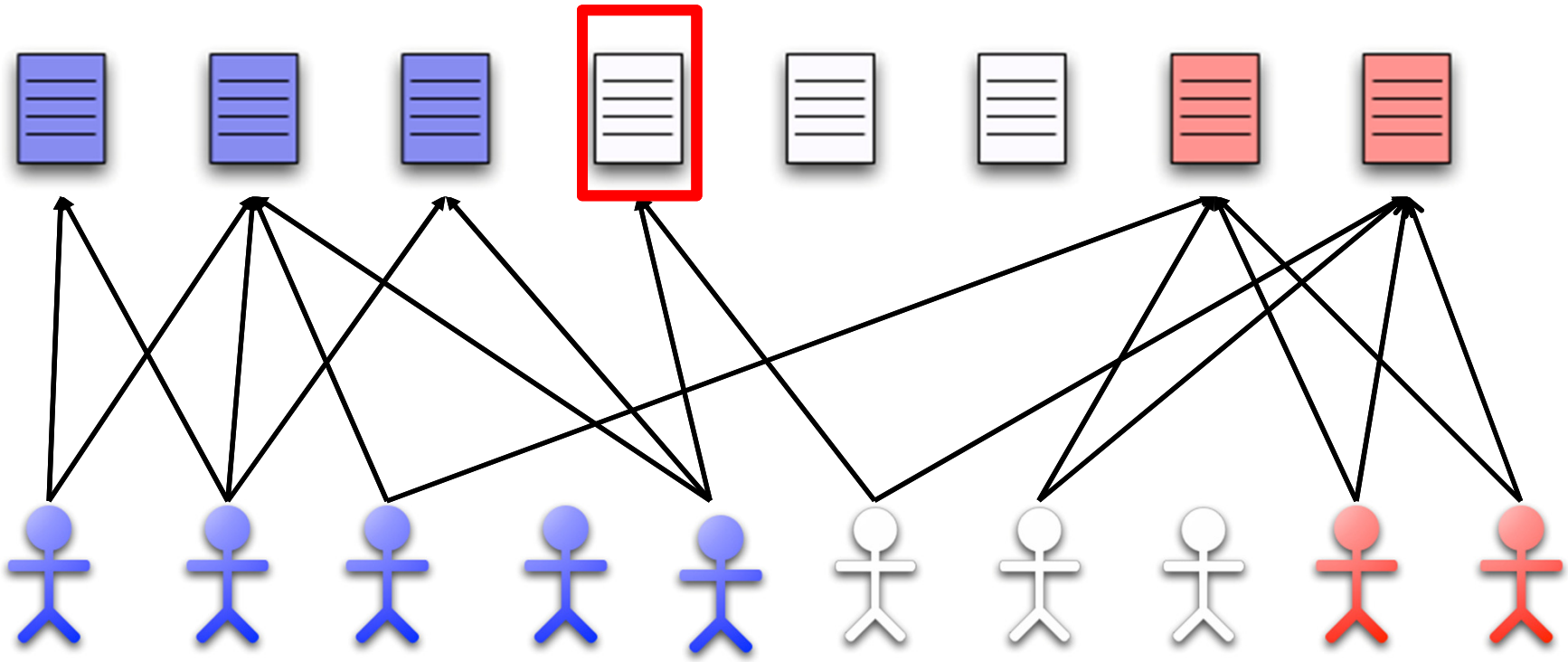

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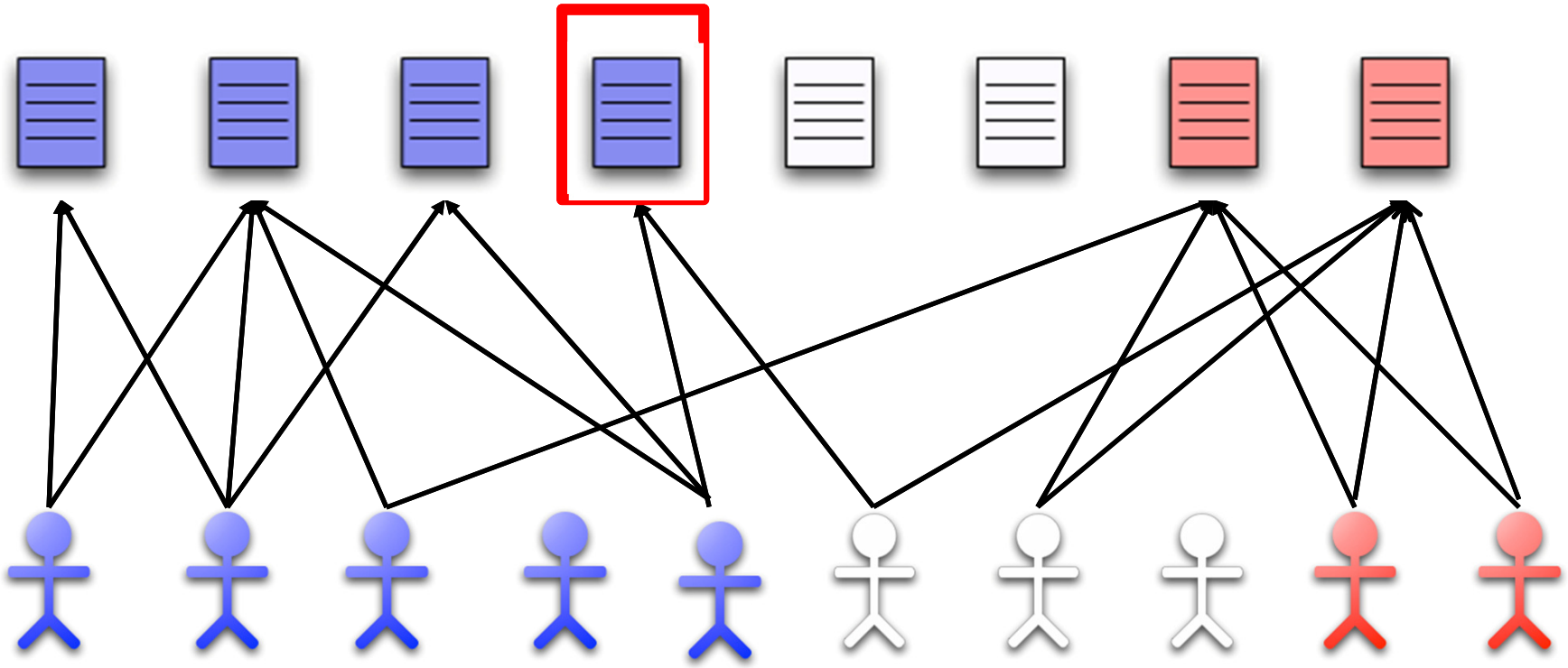
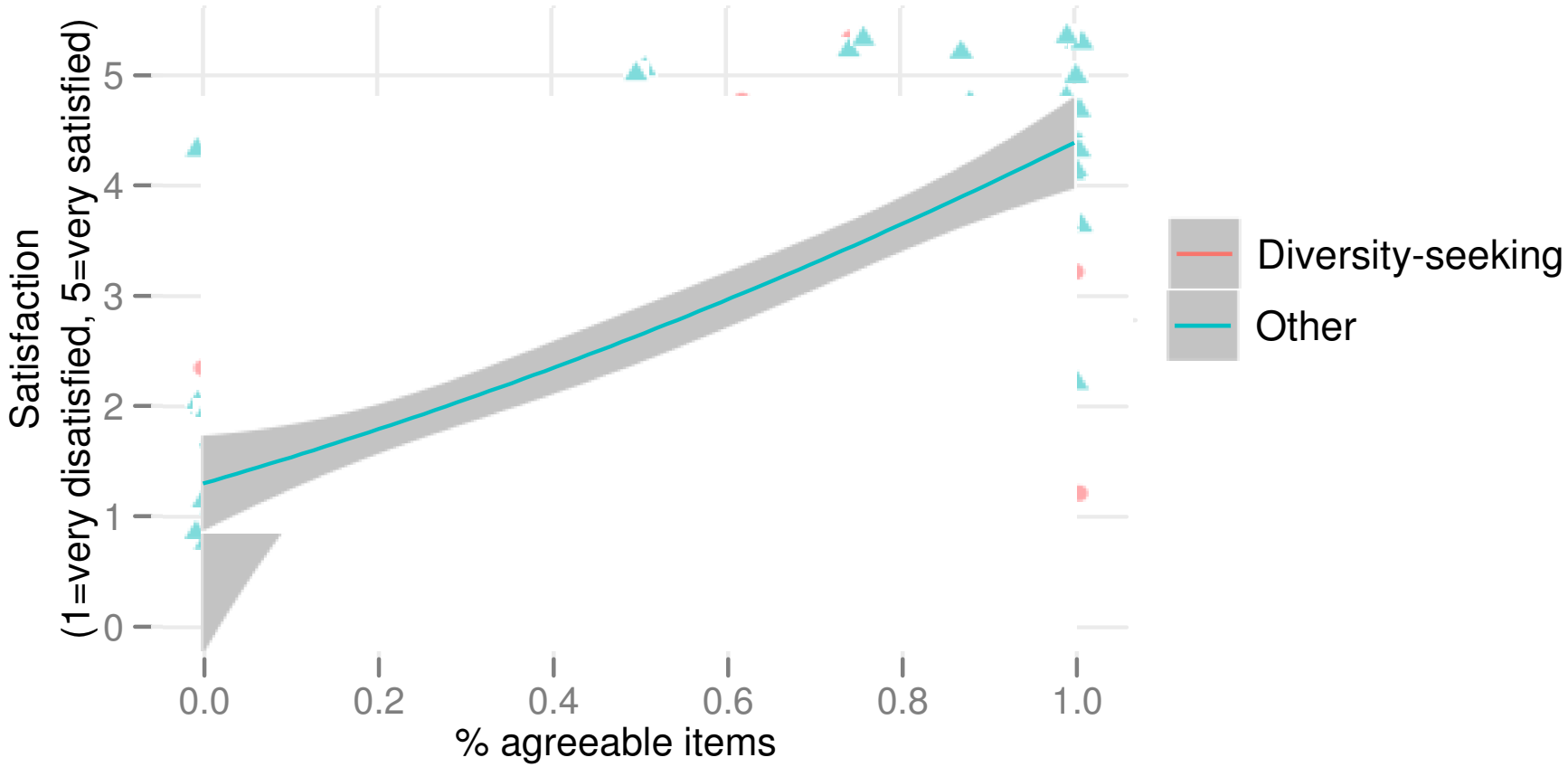


Graph Propagation Algorithms

- Random Walk with Restart
- Absorbing Random Walk
- Local Consistency Global Consistency

A CHALLENGE IN EVALUATION

What is the Ground Truth?

- 1000 articles
  - 3 liberal and 3 conservative raters for each
- Fleiss' Kappa only 0.53
- Interim approach: only items that all 6 raters agreed on (307 items)
- Currently: rethinking ground truth for classification tasks

Diversity Preferences