### Static (Batch) Predictions

#### Twitter Social Network

What types of neighbors lead to the best attribute predictions?

1. Candidate Central (follow D and R candidates)
2. User, one neighbor, R types
3. Geo Central (self-report)
4. Politically Active (www.politifact.com)
5. User, no neighbors, 10 types
6. Age (self-report)
7. Gender (male)

### Key Findings

- Neighborhood content is useful for personal analytics.
- Attributed sortiment is distributed in the neighborhood.
- Attributed assortativity influences the performance.

### Streaming (Online) Inference

#### Streaming Models

- $P_r(A|p_r) = 0.62$
- $P_r(A|p_r) = 0.77$

### Key Findings

- Streaming models are more effective than batch models for personal analytics.
- Generalization of the classifiers depends on data sampling or annotation biases.

### Dynamic (Iterative) Learning

#### Iterative Batch Classification

#### Active Learning Classification

#### Batch vs. Active Model Evaluation

- Active w/o Oracle
- Active with Oracle
- Active with Rationales

### Key Findings

- Active retraining outperforms iterative batch retraining.
- Predicting from user-neighbor or neighbor streams is more effective than the user stream.
- Rationale annotation and filtering significantly improves the performance.