Lyza: Sentence-based Sentiment Analysis for Amazon-style Reviews

The Technology and Innovation
- Two-part classification for sentiment analysis (of Amazon-style reviews)
- Classifies sentence as polar or nonpolar, then determines polarity
- Uses support vector machines for classification
- Evaluates novel features such as syntactic dependency (using Stanford parser) for determining if the sentence is polar or nonpolar
- Provides GUI for analyzing results of analysis
- Automatically optimizes machine learning parameters
- Model trained on gold-standard of over 1000 reviews

Community/Industry Impact and Value
- Improves on current single-classifier sentiment analysis approach
- Novel syntactic features provide basis for further research

Community/Industry Engagement
- Wayne State University Computer Science Department

Team Composition
- Will Angell (CS), Drew Verlee (CS), Dominic Fiore (CS), David Hui (CS), Khayyam Hashmi (Advisor)

Further Research and Development
- Evaluate more features
- Increase depth of current features (emoticons, intensifiers, etc.)