**Detecting Aspects and Sentiment in Customer Reviews**

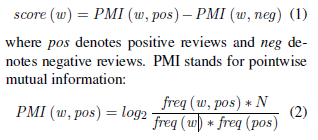
1 Introduction

Similar aspect terms can be grouped into aspect categories. For example, lasagna and other food items can be grouped into the aspect category of ‘food’. In Task 4, customer reviews are provided for two domains: restaurants and laptops. A fixed set of five aspect categories is defined for the restaurant domain: food, service, price, ambiance, and anecdotes. We present an in-house sequence tagger to detect aspect terms and supervised classifiers to detect aspect categories, sentiment towards aspect terms, and sentiment towards aspect categories.

2 Lexical Resources

2.1 Unlabeled Reviews Corpora

2.2 Lexicons





2.3 Word Clusters

Word clusters can provide an alternative representation of text, significantly reducing the sparsity of the token space.

3 Subtask 1: Aspect Term Extraction

Our features can be divided into two categories: emission and transition features.

4 Subtask 2: Aspect Term Polarity

In this subtask, the goal is to detect sentiment expressed towards a given aspect term.

5 Subtask 3: Aspect Category Detection

6 Subtask 4: Aspect Category Polarity

7 Conclusion

The paper describes supervised machine-learning approaches to detect aspect terms and aspect categories and to detect sentiment expressed towards aspect terms and aspect categories in customer reviews. Apart from common surface-form features such as ngrams, our approaches benefit from the use of existing and newly created lexical resources such as word–aspect association lexicons and sentiment lexicons.