

Collaboratively Training Sentiment Classifiers for Multiple Domains

Abstract:

Collaborative multi-domain sentiment classification approach to train sentiment classifiers for multiple domains simultaneously. In our approach, the sentiment information in different domains is shared to train more accurate and robust sentiment classifiers for each domain when labeled data is scarce. Specifically, we decompose the sentiment classifier of each domain into two components, a global one and a domain-specific one. The global model can capture the general sentiment knowledge and is shared by various domains. The domain-specific model can capture the specific sentiment expressions in each domain. In addition, we extract domain-specific sentiment knowledge from both labeled and unlabeled samples in each domain and use it to enhance the learning of domain-specific sentiment classifiers. Besides, we incorporate the similarities between domains into our approach as regularization over the domain-specific sentiment classifiers to encourage the sharing of sentiment information between similar domains.

Existing System:

Mining the sentiment information contained in the massive user generated content can help sense the public's opinions towards various topics, such as products, brands, disasters, events, celebrities and so on, and is useful in many applications . For example, researchers have found that analyzing the sentiments in tweets has the potential to predict variation of stock market prices and presidential election results. Classifying the sentiments of massive micro blog messages is also helpful to substitute or supplement traditional polling, which is expensive and time-consuming.

Disadvantages:

- More Expensive
- Time consuming more

Proposed System:

Collaborative multi-domain sentiment classification approach. Our approach can learn accurate sentiment classifiers for multiple domains simultaneously in a collaborative way and handle the problem of insufficient labeled data by exploiting the sentiment relatedness between different domains. We propose to extract domain-specific sentiment knowledge from both labeled and unlabeled samples, and use it to enhance the learning of the domain-specific sentiment classifiers. Besides, we propose to use the prior general sentiment knowledge in general-purpose sentiment lexicons to guide the learning of the global sentiment classifier. In addition, we propose to incorporate the similarities between different domains into our approach as regularization over the domain-specific sentiment classifiers to encourage the sharing of sentiment information between similar domains.

Advantages:

- Less Expensive.
- Less time consuming

Modules:

- Domain-specific sentiment knowledge and domain similarity.
- Collaborative multi-domain sentiment classification.

SYSTEM REQUIREMENTS

H/W System Configuration:-

Processor	- Pentium –III
RAM	- 256 MB (min)
Hard Disk	- 20 GB
Key Board	- Standard Windows Keyboard
Mouse	- Two or Three Button Mouse
Monitor	- SVGA

S/W System Configuration:-

Operating System : Windows95/98/2000/XP
Application Server : Tomcat5.0/6.X
Front End : HTML, Jsp
Scripts : JavaScript.
Server side Script : Java Server Pages.
Database : MySQL 5.0
Database Connectivity : JDBC