

SURVEY ON SENTIMENT ANALYSIS

N.Jagadish Kumar,
Assistant Professor,
Department of Information Technology,
Velammal Institute of Technology,
Chennai, Tamilnadu.

E.Abirami,
B.Tech Scholar,
Department of Information Technology,
Velammal Institute of Technology,
Chennai, Tamilnadu.

S.Rajakumari,
B.Tech Scholar,
Department of Information Technology,
Velammal Institute of Technology,
Chennai, Tamilnadu.

Abstract: Nowadays the use of E-Commerce applications are getting increased. So the Website designers also provide a platform for the users to post their opinions in free text feedback comments. At the same time the sellers of the online products were also increasing their reputation by creating fake reviews. So the buyers are confused to buy the product with best quality. In order to overcome this issues, We need Sentiment Mining. So in this paper we have a list of survey on Sentiment Analysis.

Keywords: natural language processing, machine learning, sentiment analysis, opinion mining, polarity shift, Data expansion

1. COMPARATIVE STUDY OF SENTIMENT CLASSIFICATION TECHNIQUES:

Shailendra kumar singh et al[1] This paper considers the people using social website and electronic media. It is found that people are giving more importance to the reviews posted by the previous users of the product or services. So this paper focuses on the comparative study of different Sentiment classification techniques performed on different data set domains. The sentiment analysis is helpful and also used by manufacturers, Organizations, Customers, etc... The main aim of this paper is to show which classification techniques (Machine learning algorithms, Link analysis methods and score based approaches) has to be used for Feature Based Sentiment (FBS) and others for Bag Of Words (BOW).

2. LEXICON-BASED APPROACH USING SO-CAL

Maite toboada et al[2] This paper represents that a **Lexicon-Based approach** is Robust and Reliable to extract a sentiment from text. It uses **Sentiment Orientation Calculator (SO-CAL)** rather than Statistical text classification methods. Because Statistical text classification trains classifiers only on a particular data set. Semantic Orientation is defined as a measure of Subjectivity and opinion in text. It captures the opinion (Positive/Negative) and strength (degree to which word, sentence or document the opinion refers to) towards a subject or idea. To be Simple, the Lexicon-Based approach can be used across various domains. When reading any document it will become conscious to the local context of words need to be taken in SO assessment such as Negation (eg: not good) and Intensifications (eg: very good). Hence it is proved that this technique is very efficient for all domains.

3. SENTIMENT CLASSIFICATION USING SENTIWORDNET 3.0

Stefano Baccianella et al[3]: This paper presents a **SENTIWORDNET 3.0**, a lexical resource that supports Sentiment classification and Opinion mining applications. It is an improved version of SENTIWORDNET 1.0. But both the versions are used for the annotation of all WORDNET SYNSETS according to their degrees of Positivity, Negativity and Neutrality. The Version 1.0 and 3.0 are differ only in their versions and the algorithms (Bag Of Words (1.0) and Bag Of Synsets (3.0)) used by them for annotations. The SENTIWORDNET 3.0 has been effectively used for research purposes in a day-to-day life and it is proved that it has given a 20% accuracy improvement over SENTIWORDNET 1.0.

4. REDUCTION OF DOMAIN DEPENDENCY USING MULTI-DOMAIN SENTIMENT CLASSIFICATION

Shou-Shan Li et al[4]: This Paper aims to reduce the domain dependency and to improve the overall performance of sentiment classification by introducing **Multi-domain sentiment classification** algorithm. This method will first train the classifiers for Single domain separately for specific domain data and combine the classifiers for the final decision. This approach reduces the error upto 27.6% over Single domain classification.

5. SENTIMENT CLASSIFICATION AND OPINION MINING USING CROSS-DOMAIN SENTIMENT CLASSIFICATION

Danushka Bollegala et al[5]: This paper focuses on the major problem of training a Binary classifier for Sentiment classification. The problem is that the sentiment is expressed as positive or negative in different ways in different domains, so training a classifier for particular domain will

work properly only for that specific domain and its performance will be poor for other domains. To overcome this problem, this paper presents a **Cross-Domain Sentiment Classification**. Cross-Domain Sentiment Classification will identify the matching features that relates the Source and Target domains. Then it will incorporate the information regarding the related features in a learning framework and create a sentiment sensitive thesaurus. It is also proved that it captures the words with similar sentiments accurately than the sentiwordnet.

6. DIFFERENT APPROACHES OF POLARITY CLASSIFICATIONS USED IN DUTCH:

Isa Maks et al[6]: presents two types of approaches used for the automatic annotation of polarity (positive, negative and neutral) of adjective synsets in Dutch. As wordnet is an lexicon resource, the author used wordnet for the creation of a Dutch polarity lexicon at word sense level in both the approaches. The version of wordnet used here is sentiwordnet1.0. The first approach is simply transfer of English Sentiment lexicon to Dutch. Then the second approach uses the wordnet based propagation algorithm with different settings. The settings considers the Quality and length of the seed lists. The outcome of these approaches were compared and tested against the similar approaches used in polarity lexicons for English.

7. AUTOMATIC SELECTION OF SEED WORDS IN CHINESE FOR UNSUPERVISED SENTIMENT CLASSIFICATION

Taras Zagibalov et al[7]: overcomes the problem of dependency of sentiment classification encountered in previous approaches. This paper is also presented and tested in Chinese. This presents a automatic selection of seedword for sentiment classification. It is particularly implemented in Unsupervised sentiment classification. The only information required here is commonly used negations and adverbials. This use automatic selection of seedword for unsupervised sentiment classification is proved to be obtaining results closer to supervised classifiers and sometimes better than them upto 92%.

8. CROSS-DOMAIN SENTIMENT CLASSIFICATION USING SPECTRAL FEATURE ALIGNMENT

Sinno Jialin Pan et al[8]: aims to predict sentiment polarity using Spectral Feature Alignment in CROSS-DOMAIN SENTIMENT CLASSIFICATION. SFA bridges the gap between the different domains by aligning domain specific words from various domains into Unified clusters. It helps to train the classifiers in target domain accurately. SFA is proved to be more robust in exploitation of relationship between the domain-specific and domain-independent words by co-clustering them simultaneously in a common latent space.

REFERENCES

- [1] Shailendra Kumar Singh, Sanchita Paul and Dhananjay Kumar, "Sentiment Analysis Approaches on Different Data set Domain: Survey", International Journal of Database Theory and Application Vol.7, No.5 (2014), pp.39-50.
- [2] Maite Taboada, Julian Brooke, Milan Tofiloski, Kimberly Voll, Manfred Stede, "Lexicon-Based Methods for Sentiment Analysis", Submission received: 14 December 2009; revised submission received: 22 August 2010; accepted for publication: 28 September 2010, Volume 37, Number 2.
- [3] Stefano Baccianella, Andrea Esuli, and Fabrizio Sebastiani, "SENTIWORDNET 3.0: An Enhanced Lexical Resource for Sentiment Analysis and Opinion Mining, Istituto di Scienza e Tecnologie dell'Informazione Consiglio Nazionale delle Ricerche Via Giuseppe Moruzzi 1, 56124 Pisa, Italy.
- [4] Shou-Shan Li^{1,2}, Chu-Ren Huang², and Cheng-Qing Zong³, "Multi-Domain Sentiment Classification with Classifier Combination", Supported by the National Natural Science Foundation of China under Grant No. 61003155 and Start-Up Grant for Newly Appointed Professors under Grant No. 1-BBZM in The Hong Kong Polytechnic University. ©2011 Springer Science + Business Media, LLC & Science Press, China, J. Comput. Sci. & Technol., Jan. 2011, Vol.26, No.1.
- [5] Danushka Bollegala, Member, IEEE, David Weir and John Carroll, "Cross-Domain Sentiment Classification using a Sentiment Sensitive Thesaurus", D. Bollegala is with University of Tokyo, danushka@iba.t.u-tokyo.ac.jp D. Weir and J. Carroll are with University of Sussex, {j.a.carroll,d.j.weir}@sussex.ac.uk.
- [6] Isa Maks, Piek Vossen Vu University, Faculty of Arts, "Different Approaches to Automatic Polarity Annotation at Synset Level", De Boelelaan 1105, 1081 HV Amsterdam E-mail: e.maks@let.vu.nl, p.vossen@let.vu.nl.
- [7] Taras Zagibalov, John Carroll, "Automatic Seed Word Selection for Unsupervised Sentiment Classification of Chinese Text", University of Sussex Department of Informatics Brighton BN1 9QH, UK {T.Zagibalov,J.A.Carroll}@sussex.ac.uk.
- [8] Sinno Jialin Pan, Xiaochuan Ni, Jian-Tao Sun, Qiang Yang and Zheng Chen, "Cross-Domain Sentiment Classification via Spectral Feature Alignment", †Department of Computer Science and Engineering Hong Kong University of Science and Technology, Hong Kong ‡Microsoft Research Asia, Beijing, P. R. China † {sinnopan, qyang}@cse.ust.hk, ‡ {xini, jtsun, zhengc}@microsoft.com, ACM 978-1-60558-799-8/10/04.