

# Dual Canvas Analysis

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**Abstract:** *The rise of social media such as blogs and social networks works has fuelled interest in sentiment analysis. With the proliferation of reviews, ratings, recommendations and other forms of online expression, online opinion has turned into a kind of virtual currency for businesses looking to market their products, identify new opportunities and manage their reputations; therefore many are now looking to the field of sentiment analysis. In this paper, we present a feature-based sentence level approach for Arabic sentiment analysis.*

*Our approach is using Arabic idioms/saying phrases lexicon as a key importance for improving the detection of the sentiment polarity in Arabic sentences as well as a number of novels and rich set of linguistically motivated features (contextual Intensifiers, contextual Shifter and negation handling), syntactic features for conflicting phrases which enhance the sentiment classification accuracy. Furthermore, we introduce an automatic expandable wide coverage polarity lexicon of Arabic sentiment Words. The lexicon is built with gold-standard sentiment words as a seed which is manually collected and Annotated and it expands and detects the sentiment orientation automatically of new sentiment words using synset aggregation technique and free online Arabic lexicons and thesauruses. Our data focus on modern standard Arabic (MSA) and Egyptian dialectal Arabic tweets and micro blogs (hotel reservation, product reviews, etc.). The experimental results using our resources and techniques with SVM classifier indicate high performance levels, with accuracies of over 95%.*

## 1. Introduction

The World Wide Web and the Internet provide a forum through which an individual's process of decision making may be influenced by the opinions of others. For example, the customer feedback system used by eBay.com allows customers to use free-form text to rate products and services received while making the ratings available to other customers to review before they make a purchase decision, in effect allowing a customer to make a more informed decision. Customer feedback and product evaluations can also be found at many online sites including opinions.com and amazon.com. Online sites such as

rottentomatoes.com, allow movie buffs to leave reviews for movies they have seen. Online sites, such as Facebook and blogs, allow users to leave opinions and comments. Other online sites, such as cnn.com and glob eandmail.com, allow readers to leave comments. These kinds of online media have resulted in large quantities of textual data containing opinion and facts. Over the years, there has been extensive research aimed at analyzing and classifying text and data, where the objective is to assign predefined category labels to documents based upon learned models. However, more recent research has attempted to analyze textual data to determine how an individual feels about a particular topic.

## 2. Problem definition:

To develop a Dual Review Analysis by using Different Web review within a same Websites, to analysis, to understand product review to maintain product analysis ratio.

Sentiment analysis has been formally referred to as a broad (definitinally challenged) area of generally speaking, it aims to determine the attitude of a speaker or a writer with respect to some topic. Their attitude may be a judgment or evaluation, an affective state (that is to say, the emotional state of the author when writing), or an emotional communication (that is to say, the emotional effect the author wishes to have on the reader).

## 3. Existing Methodology:

In existing system, only supervised training data set classification is done where all reviews of the user are reported, so exact review of product is not possible. Existing system in sentiment classification classifies whether product reviews or sentence expresses a positive opinion or negative opinion.

## 4. Limitations of Existing System:

- Existing system in sentiment classification classifies whether product reviews or

sentence expresses a positive opinion or negative opinion.

- Proposed System will provide conversion of text in various languages.
- Proposed system will provide a user to express his views with emoticons.
- Proposed system can identify the location of the reviewer by getting his IP address.
- In Proposed system rating is as per percentage (negative, positive, neutral).

### 5. Proposed System:

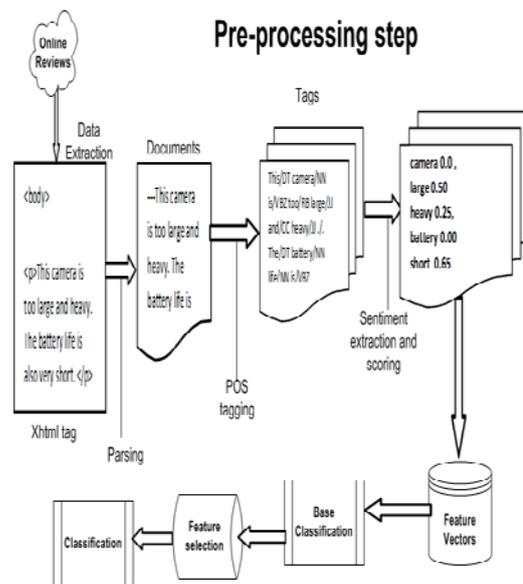
In Proposed system, we are developing unsupervised training data set classification where all info can be reported with their location to respective city and product report generated in percentage. Proposed System will provide conversion of text in various language. Proposed system will provide a user to express his views with emotions. Proposed system can identify the location of the reviewer by getting his IP address. In Proposed system rating is as per percentage (negative, positive, neutral).

### 6. Literature Survey:

| Sr. No | Author Name  | Linguistically Motivated             | Syntactic Accuracy                | Selection and Extraction                                | Algorithm Used                                       |
|--------|--|--------------------------------------|-----------------------------------|---|--|
| 1.     | Hossam s. Ibrahim, Sherif M. Abdou, Mervat Geith, 2015 | Yes                                  | Yes                               | Yes(Contextual Shifter, Contextual Intensifier)         | K-Nearest Neighbor(KNN)                              |
| 2.     | Rui Xia, Feng Xu, Chenging Zong, Qianmu, 2015          | Yes(Text Reversion, Label Reversion) | Yes(Polarity Shift)               | Yes(Data Expansion Technique)                           | Dual Training Algorithm & Dual Prediction Algorithm) |
| 3.     | Xufang Li, Zhong Wu, 2013                              | Yes                                  | Yes(Sentence Level, Phrase Level) | No  | Data Selection algorithm(DSA)                        |
| 4.     | Eugene Yang & Nathanael Chambers                       | Yes                                  | Yes(Polarity, word, Phrases)      | Yes(Contextual Sentiment Analysis, Text Pre-processing) | Dual Prediction Algorithm(DPA)                       |
| 5.     | Qingqing Zhou, Chengzhi Zhang, Rui XIA, 2011           | Yes                                  | Yes(Polarity)                     | Yes(Cross Language Analysis)                            | EM based Training Algorithm                          |

### 7. System Architecture:

The classification step involves using a text classifier to classify the selected features as either positive or negative. The stored feature vectors become input to the text classifier. If necessary, feature selection can be applied to reduce the number of features. In order arrive at the best results, a series of iterative steps, known as cross-validation can be used to estimate how accurately a predictive model will perform in practices.



### Classification Step

Fig: System Architecture

### 8. Requirement Analysis:

1. Operating System: Windows
2. Development Tool: Ms SQL server 2008, 12 Web server IIS
3. Database: SQLite

### 9. Modules /Functionalities:

#### 1) E-commerce website Module

In E-commerce module, website is created i.e. different products are shown and there description is given and user can give there reviews in the comment box.

#### 2) Get User Location Module

Admin will get the IP address of the user and from the IP address of the user admin will Fetch the location of the user.

#### 3) Conversion of reviews modules

Clustering will do the task of conversion of the reviews into positive negative neutral or based on the features of the product and give the result into

percentage format.

#### 4) Report Generation

The reviews given by the user will be stored in the database and report will be generated based on the reviews given by the user so that the report can be used by the admin at any time in future.

### 10. Algorithm:

K-MEANS:

Let  $X = \{X_1, X_2, X_3, \dots, X_n\}$  Set of data.

Points  $V = \{V_1, V_2, \dots, V_c\}$  Set of center.

1. Randomly select 'c' cluster centers.
2. Calculate the distance between each data point and cluster center.
3. Assign the data point and cluster center whose distance from cluster center is minimum.
4. Recalculate the new cluster center.
5. Recalculate the distance between each data point and obtained cluster centers.

$$ED = (x_2 - x_1)^2 + (y_2 - y_1)^2$$

6. If no data point was reassigned then stop, otherwise repeat step 3.

### 11. Conclusion

In this project, sheet related to the design of the system will generate automatically with fewer efforts with all constraints satisfied. We have studied all SRS content and system analysis of the project and according to implementation of project will be done. We have also studied the requirement of our project and accordingly we are going to develop our system this online system so it can access anywhere and anytime.

### 12. References

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