



## Opinion Mining and Sentiment Analysis through Onto Tree

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**Abstract**— This paper deals with how ontotree works and is it possible to retrieve data in the form of tree the tree is the collection of root and siblings the noun is feed up in the root rest of that feed up in siblings that data which is feed up is either positive or negative. The positive words feed up in table positive\_sentiments and the negative words feed in table negative\_sentiments from database the words fetch up in on tree at the time of call .

**Keywords**— Ontotree, root, siblings, parts of speech, token etc.

### I. INTRODUCTION

Information about final paper submission is available from the conference website. Without proper description it is not possible to understand that how sting process work by hearing word mobile we don't understand what which company mobile is after analysing we know complete and accurate details. The proper systematic storage can be done with the help to OntoTree. Description how data is feed into tree after analyse tree.

- Sequence of root Positive, noun, negative.
- What ever came first it may be positive or negative first feed in the left sibling.
- Then after that feed up in the right sibling.
- If either positive or negative is not present then the sibling feed with root.

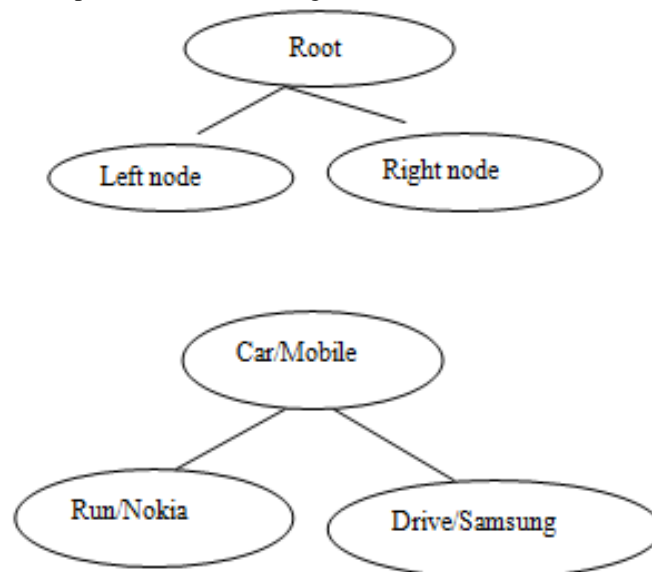


Fig 1: Tree diagram

There are many techniques used to store and retrieve data tree is one of them the main advantage to of storing data in tree is that we can physically as well as logically represent data in tree.

The word is used to organizing information in a systematic way it can easily solve the problem of storing and sorting data. The data can be related to anything it can be related to shopping mall, organization, and company etc.

The opinion can be about subject based as well as object based the outcome of that can be positive, negative or neutral.

### II. ANALYSE SENTIMENTS

The sentiment get analyse by analyse comment which occurs after tree provoke if a end user searching for the best product details he or she can do feature selection and ranking with the help of our project it is also helpful to study co-related work interesting sentiments can be find out by using this approach.

The result gets provoked in one shot without taking huge time.

Table 1: Treeface illustrate

S.no	Defining Treeface	Diagram/Illustration
1	<p>NOTR = Null OntoTree</p> <p>This.Key=Key /*Initially null/</p> <p>Left=null;</p> <p>Right = null;</p> <p>Defination of NOTR- The extreme first topmost hierarchical node</p>	
2	<p>RNOTR=Right negative Onto tree</p> <p>This.right=right;</p> <p>Defination of RNOTR- The elements at the right side of Onto tree is -ve</p>	
3	<p>LPOTR=Left positive Onto tree</p> <p>This.left=left;</p> <p>Defination of LPOTR- The elements at the left side of Onto tree is +ve</p> <p>Vice versa</p>	
4	<p>BOt=Binary OntoTree</p> <p>Bst b1= new bst();</p> <p>b1= Variable</p> <p>bst()= Function</p>	

### III. PARTS OF SPEECH

The name of the database is test first we have to write command use test in database. This table shows that how the sentence split into POS (Parts of speech) each word is concern with parts of speech example nokia is noun the noun came in the root rest of that came in the left substring and right sub string.

The positive and negative word gets stored into Mysql the name of the table created first is positive\_sentiments the positive words are (good, admirable, admire, excellent, outward, like and unmatched) after that the table created is negative\_sentiments the negative words are (bad, cloddish, rarely, dreadful, disgusting, uncomfortable and remove).

Table 2: Parts of speech

S.no	Sentence	Parts of speech tagger
01)	Nokia has excellent screen but uncomfortable grip	Nokia=Noun has=Verb excellent=Adjective screen=noun but=Conjunction uncomfortable=Adjective grip=noun
02)	Nokia authenticate outward item	Nokia=Noun authenticate= Verb outward=Adjective Item=Noun
03)	Authorize us rethink in one word.....cloddish	Authorize=Verb us=Preposition rethink=Verb in=Preposition one=Cardinal Number word=Noun..... Cloddish=Noun
04)	Nokia palmtop rarely found	Nokia=Noun Palmtop=Noun rarely=Adjective found=Verb

05)	Nokia is dreadful	Nokia=Noun is=Verb dreadful=Adjective
06)	Nokia is a ideally admirable product	Nokia=Noun is=Verb a=Adjective ideally=Adjective admirable=Adjective Product=Noun
07)	I really admire the technical merits of nokia	I=Pronoun really=Adjective admire=Adjective the= Adjective technical= Adjective merits= Adjective of=Preposition nokia=Noun
08)	I like the remove of the fileicon in nokia	I= Pronoun like=Verb the= Adjective remove= Verb of=preposition the= Adjective fileicon= Adjective in= Preposition nokia= Noun
09)	Nokia disgusting it is entirely of commercial	Nokia= Noun disgusting=Interjection it=Preposition is=Verb entirely= Adjective of= Preposition commercial= Adjective
10)	The modern nokia appear unmatched	The= Adjective modern= Adjective nokia=Noun appear= Verb unmatched= Adjective
11)	Nokia disgusting it is entirely of commercial and has remove all the snake games	Nokia= Noun disgusting=Interjection it=Preposition is=Verb entirely= Adjective of= Preposition commercial= Adjective And=Conjunction has=Verb remove=Verb all =Adjective the=Adjective snake=Noun games=Noun
12)	The modern nokia appear unmatched I tremendously much like mobile and products	The= Adjective modern= Adjective nokia=Noun appear= Verb unmatched= Adjective I=Pronoun tremendously=adverb much= Adjective like=Preposition mobile=Noun and=Conjunction products=Pronoun

Different tagger are used to divide, analyse and check data such as maxnet.tagger and englis.tagger the noun or pronoun get stored in root rest of that in siblings. Natural language processing (NLP) also play a very important role in opinion mining and sentiment analysis. It is used to connect human and computer.

Different examples are illustrated above to show the understanding of POS.

Suppose taking one simpler example.

Ram is good here ram = noun, is = verb, good = Adjective. The word good is positive word the calculated positivity in sentence is 33.33%

Here the total number of tokens is 3, the total number of positive sentiments is 1, the total number of negative sentiments is 0 and the Correlation based feature selection (CFS) strength is 1.0.

#### IV. DESCRIPTION OF WORDS

This table define that there are how many number of (Noun, Verb, Adjective, Pronoun, Interjection etc.) are there in sentence the sentence is the group of work.

Table 3: Description of words

S.No	Noun	Verb	Adjective	Pronoun	Interjection	Conjunction	Preposition	CardinalNo	Adverb
01	Noun grip screen	has	Excellent Uncountable Outward			but			
02	Nokia item	authenticate	Outward						
03	Word	Authorize rethink	cloddish				Us in	one	
04	Nokia Palmtop	found	Rarely						
05	Nokia	is	Dreadful						
06	Nokia product	is	a Ideally admirable						
07	Nokia		really admire the technical merits	I			of		
08	Nokia	Like remove	the the fileicon entirely	I of			in		

09	Nokia	is	Entirely commercial		disgusting		It of		
10	Nokia Mobile products	appear	The Modern Unmatched much	I		and	like		tremendously
11	Nokia snake game	is has remove	entirely commercial all the		disgusting	and	It of		
12	Nokia	appear	The Modern Unmatched						

## V. WORD COUNTING

This table describe the number of words .

Table 4: Word counting

.No	Noun	Verb	Adjective	Pronoun	Interjection	Conjunction	Preposition	CardinalNo	Adverb
01	3	1	2			1			
02	2	1	1						
03	1	2	1				2	1	
04	2	1	1						
05	1	1	1						
06	2	1	3						
07	1		5	1			1		
08	1	2	3	1			2		
09	1	1	2		1		2		
10	3	1	4	1		1	1		1
11	3	3	4		1	1	2		
12	1	1	3						

## VI. RESULT

In this table LOT stands for left ontotree, ROT stands of right ontotree,OT stands for ontotree .

Table 5: Result Table

S.no	LOT	ROT	OT	+VE	-VE	COMMENT
01	excellent screen	grip Uncomfortable	excellent grip uncomfortable	14.28%	14.28%	Purchase is user choice
02	root	Outward item	Outward item	25%	-	Product is good to purchase
03	root	word cloddish	word cloddish	-	14.28%	Product is bad to purchase
04	palmtop	root rarely	palmtop rarely	-	25%	Product is bad to purchase
05	root	root deadful	root dreadful	-	33.33 %	Product is bad to purchase
06	root	admirable product	admirable product	20%	-	Product is good to purchase
07	admire root	nokia	admire nokia	12.5%	-	Product is good to purchase
08	Like root remove	nokia	like nokia remove	11.11%	11.11%	Purchase is user choice
09	root disgustng	root	Root disgusting	-	14.28%	Product is bad to purchase
10	nokia	unmatched root	unmatched root	20%	-	Product is good to purchase
11	root disgusting	games remove	game disgusting	-	14.28%	Product is bad to purchase
12	unmatched nokia	Like products	Unmatched nokia	16.66%	-	Product is good to purchase

- We can calculate the percentage of +ve and -ve sentiments with the help of given formula .
- Simple formula to calculate (Positive /Negative %) =

$$\frac{\text{Total Number of Positive Sentiments / Negative Sentiments}}{\text{Total number of token in the sentence}}$$

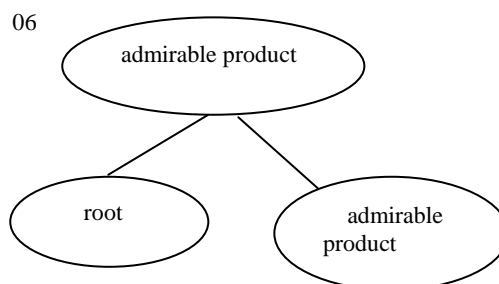
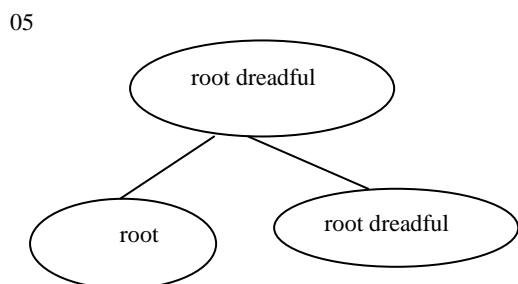
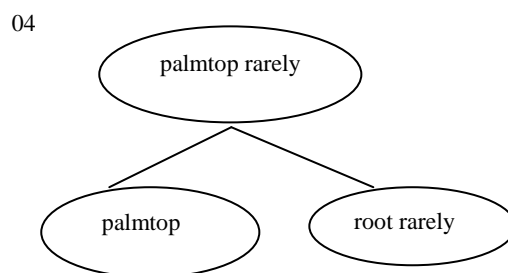
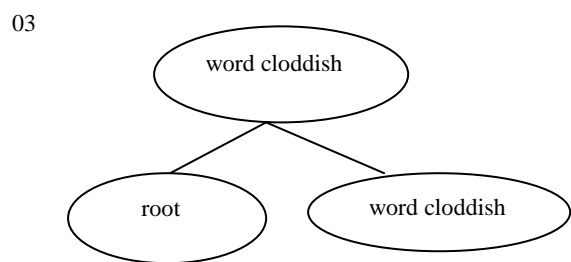
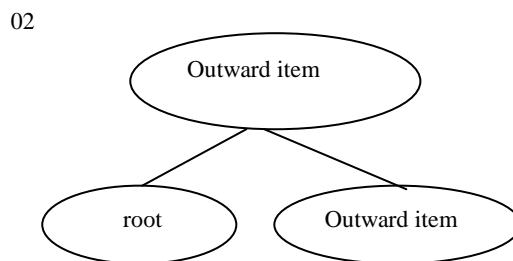
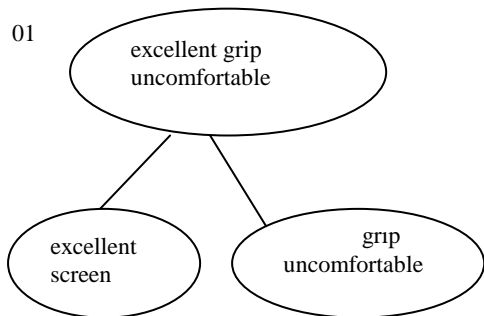
Cell 1: formula (+ve/-ve) count

Table 6: Result Table short

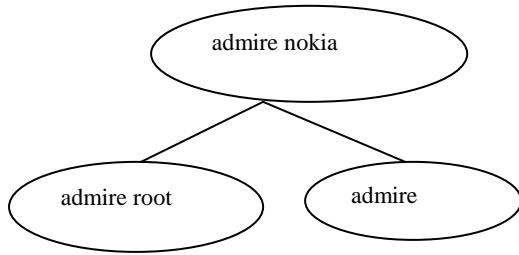
S.no	Total opinion reviewed	Total no of positive opinion	Total no of negative opinion	No of neutral opinion
01	12	05	05	02

### VII. TREE OUTPUT

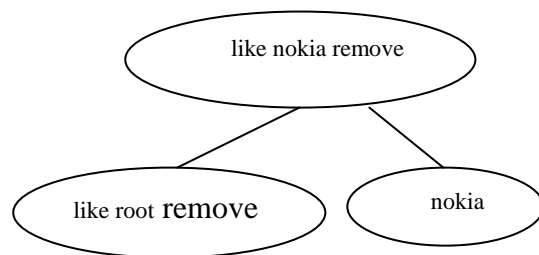
These figures represent different output of onto tree.



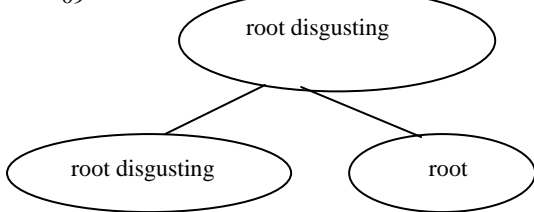
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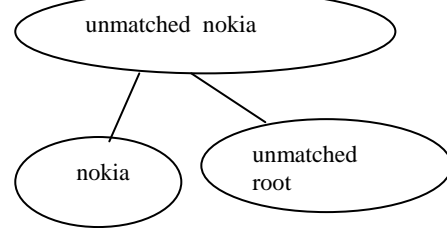
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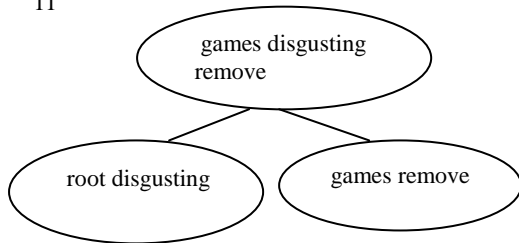
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10



11



12

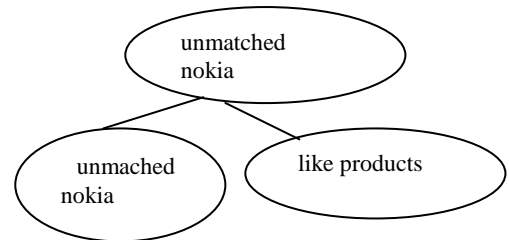


Fig 2: Tree output with multiple cases

### VIII. CONCLUSIONS

The whole description is an effective work toward opinion mining and sentiment analysis after feeding string the productive and fast results are achieved through ontotree. We can find out sway inclination in an effective way there are other methods to but they are time consuming our main focus is on time and effectiveness our work is comfortable and easy to understand . Our method follows the concepts of data structure storage techniques.

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