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Voice Command E-Commerce

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Abstract: E-Commerce is a system which has bought a revolution in the business world and also in life of individuals as they can simply order by using the internet and need not go and search in shops. This paper is about advancement in E-Commerce and will show how the new technology in E-Commerce will be. In this new system most easy part is that the product reviews of all the online shopping sites will be shown in a single page and the user need not search every online site for reviews and user can complete the order by interacting with computer by the voice of the user. This is very easy to adopt by any user.

Keywords: web content mining, opinion mining, Annyang

I. INTRODUCTION

E-Commerce is trading of products by internet network/telecommunications which involves Electronic Fund transfer. As the name defines E is defined for Electronic and commerce means transaction of goods and services.
The present system of e-commerce is very helpful for every individual but every technology needs improvement. Every system contains a drawback and the one of the drawbacks is the prices and reviews of a product may be different in online shopping site and a buyer has to search in other online shopping sites. So it will be difficult for the buyer to search all the other online shopping sites. The present system may not be used for the people who are handicapped and people who are not very familiar with usage of computers. In the proposed system the drawbacks can be overcome by using the web content mining software and the reviews can be easily given by opinion mining and a device called voice command device which is used in this system to help the handicapped people by which one can easily do the order by voice as his input. This can bring advancement in E-Commerce.

II. PREVIOUS EXISTING SOLUTIONS:

Present existing Online E-Commerce:

In present e-commerce system there will be many online shopping sites and a product's cost and reviews will be different in every shopping site and the user have to study product review and cost from every online shopping site and then have to decide and order it. In this system the user have to complete the order by going into each and every page like online payment, shipping address etc… The order will be completed by interacting with computer through mouse and keyboard which by usage of hand.
Drawback of the system:

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- The cost of the product and shipping charges may not be same in every online shopping site and reviews and ratings also will not be the same. It will be difficult for the buyer to go through different online shopping sites as it is time consuming.
- The buyer has to complete the order by hand using the mouse and keyboard and this will not be possible for handicapped especially blind people and some other people who don't know about the usage of computers and internet so they may have take some others help to order the product.

III. EQUIPMENT FOR PROPOSED SYSTEM

Microphone: it is used to give the input of speech
Annyang: Annyang is a tiny java script library which will allow the user to control the web application/website by voice commands. It allows multiple languages and it's a size of 1kb.

Web application: A web application is any application that uses a web browser as a client.

Web content mining: Web content mining is the mining, extraction and integration of useful data, information and knowledge from internet. It is the extended work performed by search engines. In this there will be using Agent based approach in that there are three types of agents those are Intelligent search agents, Information filtering/Categorizing agent and Personalized web agents .

Intelligent Search agents automatically searches for information according to a particular query using domain characteristics and user profiles.

Information agents used number of techniques to filter data according to the predefine instructions.

Personalized web agents learn user preferences and discovers documents related to those user profiles

Opinion mining: This is the software used to give the opinion of a product based on the reviews which will help the buyer to choose the online shopping site by seeing the reviews of product from online shopping sites displayed.

There are four tools required to complete this process

Review Seer tool – This tool automates the work done by aggregation sites. The Naive Bayes classifier approach is used to collect positive and negative opinions for assigning a score to the extracted feature terms.

Web Fountain - It uses the beginning definite Base Noun Phrase (bBNP) heuristic approach for extracting the product features.

Red Opal –It is a tool that enables the users to determine the opinion orientations of products based on their features. It assigns the scores to each product based on features extracted from the customer reviews'

Opinion observer-This is an opinion mining system for analyzing and comparing opinions on the Internet using user generated contents. This system shows the results in a graph format showing opinion of the product feature by feature.

The complete system is shown in the Block Diagram below and the working of the system will be explained in the other section. This is the system which can be easily adoptable by every person who uses the E-Commerce for getting the goods.

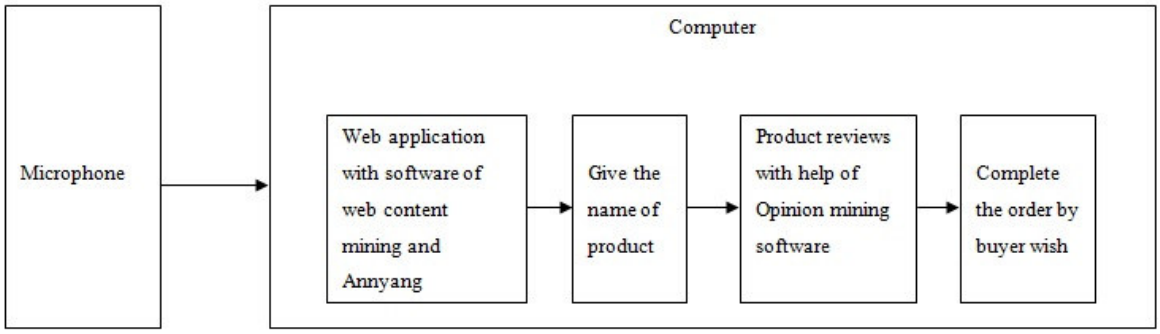

Figure.1 Proposed System

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IV. IMPLEMENTATION OF PROPOSED SYSTEM

In the implementation of the proposed system firstly a web application is created and appears on desktop of computer with inbuilt software called web content mining which is the extended work performed for search engines and it is used to easily find the required product from different online shopping sites and integrate the data and a java script called Annyang is added to the webapp which is a java script through which user can control the web app by speech. In this app there is one more software called opinion mining which will help in finding the reviews and ratings of a product so the buyer can easily make out the decision by the reviews and ratings from every online shopping site and also company sites .

If a person wants to buy a product through E-Commerce he has to search the product in every online shopping site and he has to use the keyboard and mouse. This is very time consuming and also may not help the handicapped people and also this system will be helpful for the normal people in village who does not have knowledge of operating computer, can be more beneficial with this system

So the proposed system is a advancement for that if a buyer wants to buy a product he can give the voice command to open the web app through microphone and the web app will open and the buyer will give the name of the product by voice through microphone and the web app which is with softwares called web content mining and opinion mining will give the product given by buyer with reviews of the product from different shopping sites by the reviews he will decide to buy from which site and will complete the order by voice and there will be a voice back during the completion of order for confirmation details.

So this system will definitely be useful and definitely will be a advancement in E-Commerce.

V. CONCLUSION

Finally I conclude this system will be advancement in E-Commerce and this system will definitely make the buyer less time consuming and provide easy way of ordering. This system will be helpful not only in commercial way and also in helping the individuals.
In future development instead of a webapp a Mobile app will be created and this system will be implemented on the mobiles and in later stage a G -translate can also be placed so that it can help the people who are not familiar with English and only know the native language can be able to place the order.

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