

Voice based Internet Browser

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ABSTRACT

Websites are accessible only through devices equipped with a screen and a Graphical User Interface (GUI). This requires physical interaction with devices. We present a system which allows browsing the Internet by using a standard voice only, with the development of a Vocal User Interface (VUI). The system accepts vocal commands as input from the user, translates those commands into HTTP requests, sends them to the web server which processes it and finally returns the HTTP response translated back to the user in a vocally manner. To reach this goal the system implements Content Extraction (CE) algorithms over web content in order to analyze, classify and return relevant parts of web pages to the user.

The Microsoft speech SDK allows applets transmitted over the Internet or intranets to access speech capabilities on the user's machine. This provides the ability to enhance World Wide Web sites with speech and support new ways of browsing. Speech recognition can be used to control browsers, fill out forms, control applets and enhance the WWW/Internet experience in many other ways. Speech synthesis can be used to bring web pages alive, inform users of the progress of applets, and dramatically improve browsing time by reducing the amount of audio sent across the Internet.

Its applications are numerous: for example helping the blind access the internet through speech and hearing, helping disabled people or young children unable to use a keyboard to "speak" their commands into the web, or, simply enabling any person to interface the web contents via oral commands, instead of a keyboard.

Keyword: Content extraction, Voice reorganization

1. INTRODUCTION

Now a day, web browser is become a most popular source of information. Millions of people used it for their daily activities. The browser which are currently available are generally GUI browser. Generally browser are not able to operate by using voice command, because of that the people who are physically handicapped are not able to use this information source. This paper gives idea about handling of the complete browser only through voice. Using vocal access to the network one can access the complete browser. Different speech conversion methods are available such as voiceXML, java speech API, Microsoft speech Software Development Toolkit. Our system based on platform of Microsoft speech SDK (Software Development Kit) for conversion of voice to text.

This system is divided in to the various module. The modules like speech conversion, database, command checker, web page handler, system handler are the different modules of the system.

2. SYSTEM ARCHITECTURE

First of all the user give command to the system by the use of microphone. These commands are then pass to system tool called 'Microsoft speech SDK'. This tool converts the speech into text string. This string is input to our module which we going to be attached to the browser. This module consist of

- 1) Command checker
- 2) Browser handler
- 3) Web page handler
- 4) System updater.

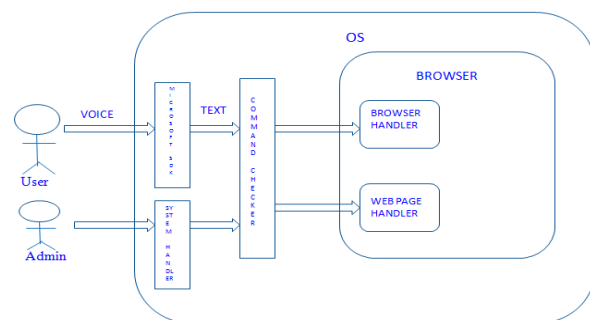


Fig 1: system Architecture

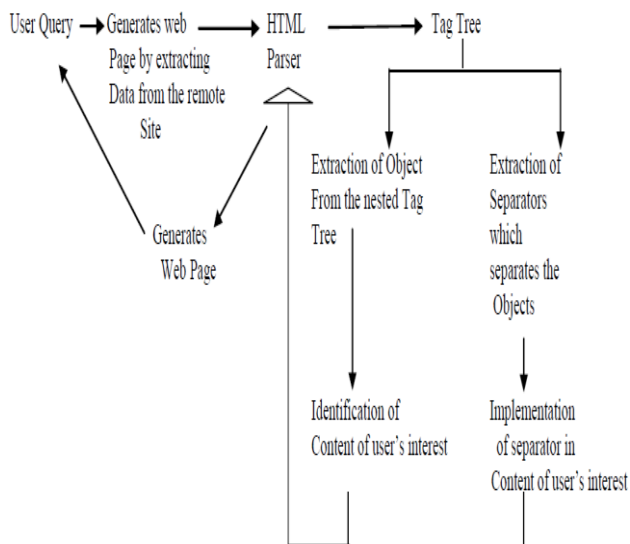
- 1) Command checker

We are maintaining the database of commands in the MS-access. This module compares the string with the commands and if it matches then that command will send either to the browser handler or to the web page handler. If that command is not present then it will show you the error message.

Suppose, if command is like this 'Google dot com' then it will automatically converts that command like 'google.com'

- 2) Browser handler

The browser handler deals with actual browser commands like save, open, edit, copy, paste, etc. So here it just calls the system '.exe' file of that command, it will get open.



6. CONCLUSION

In this paper we proposed a system able to translate visual websites into vocal applications giving the user a realistic browsing experience. Our system is based on the collaboration of distributed modules. Thus, it represents a significant progress in the world of Internet access and will generate new vocal applications based on richer vocal interfaces.

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Webpage before content extraction



Webpage after content extraction