

AccessibleNews DAISY: Newspapers in DAISY

Gaurang Kanvinde
Director, Accessible Systems
C/2, MadhavBaug Society, Sir M V Road,
Andheri(E), Mumbai 400 058
+919833075359

gaurang@accessiblenews.co.in

Saurabh Gupta
Director, Accessible Systems,
C/2, MadhavBaug Society, Sir M V Road,
Andheri(E), Mumbai 400 058
+918871522184

saurabhg@accessiblenews.co.in

ABSTRACT

Reading newspapers and magazines becomes difficult and dreary task for people with visual impairment and print disabilities. As a result, this important avenue for increasing awareness and knowledge remains largely closed to such people. In this paper, we describe an elegant solution to this challenge - the AccessibleNews DAISY software developed by Accessible Systems, an Assistive Technology firm based in Mumbai, India

Keywords

DAISY, RSS, newspapers, websites

1. INTRODUCTION

This document explains the need serviced by AccessibleNews Daisy, and it's use. The technology for this software has been developed in 2005 by the founders of Accessible Systems[1].

2. THE NEED

The Internet offers unlimited choice as a source of information. However, it is rather cumbersome to use as a source of daily news and for general reading. This is specially true for blind people who are new to either blindness or computers.

In order to read on the Internet, one usually has to be present in front of a computer, which often takes away the pleasure of reading, because of it's inconvenience. This constraint also prevents a person from reading while commuting, lounging or during any other leisure activity.

Further, a blind person has to learn to use screen-readers in order to even use computers. This can become quite a challenging task for blind people.

Mobile phones have definitely improved the ease of accessing internet. However, many blind persons still find it demanding.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

W4A2011 – Microsoft Challenge, March 28-29, 2011, Hyderabad, India. Co-Located with the 20th International World Wide Web Conference.

Copyright 2011 ACM 978-1-4503-0476-4 / ...\$5.00.

As a result blind persons are often forced to depend upon radio and TV as their primary sources of news and other information. While these are good resources, they offer very limited scope for increasing knowledge.

Sighted people readily make use of a newspapers and magazines to increase their knowledge about their world and about subjects of special interest. The authors sense the need to extend this same facility to blind persons too.

3. THE SOLUTION

3.1 DAISY digital talking books

The DAISY format developed by the DAISY consortium[2] is publishing standard that focuses on improving navigability of content. For enabling a blind person to read a digital newspaper, or a blog, with the same convenience as reading a printed newspaper or magazine, it is necessary to provide this improved navigability.

If web-based content can be rendered as a DAISY Digital Talking Book, it becomes much easier to read. Further the DTB can even be transferred to portable DAISY players, or mobile phones, for reading at a convenient time and place.

This way, a blind person is freed from the need to be in front of a computer, merely for reading news and blogs. Further, the convenience is improved, since a person can read while commuting, or having breakfast – similar to reading a printed newspaper or magazine.

This will further suit people who are new to screen readers. A large amount of Internet based content will become easily available to them, without them having to deal with the complexities of screen readers.

3.2 AccessibleNews DAISY

AccessibleNews DAISY is a software that converts web-based content into a DAISY digital talking book.

At the core of this software is a proprietary technology developed by the authors. This technology can accurately recognise useful text from an article webpage. This text can then be rendered into a DAISY book.

AccessibleNews DAISY reads from RSS feeds, and downloads the articles referred to in the feed onto the user's computer for offline viewing. It uses the technology mentioned above to extract text from these downloaded pages, and creates a DAISY 2.02 DTB[3] . The user can choose to read the DTB or the original downloaded pages, as suitable.

The user can also easily copy the DTB to his portable daisy reader. The software comes with a Daisy Sync Tool which enables the user to do this, with minimal effort.

4. USING THE SOFTWARE

The user interface for this software is online and provided through www.accessiblenews.co.in. This makes it very convenient to use. Further, screen-reader compatibility issues are eliminated.

Once the software is installed on the computer, a user needs to provide it with RSS feeds of his or her choice. This can be done in two ways

1. Through an OPML file on the user's computer
2. Using the interface provided on the website www.accessiblenews.co.in

An OPML file is a XML based compilation of RSS feeds. Most RSS readers provide a way to create an OPML file listing the feeds subscribed to by a user.

The second method is illustrated in the accompanying video[4].

Providing RSS feeds to the software is usually a one-time action. A user need not repeat this, unless he wants to add or delete some feeds.

5. READING THE CONTENT

The DAISY book created by the software is located in a directory selected by the user during installation. This directory may be changed at any time from the Start Menu shortcuts.

5.1 Software DAISY readers

A user may use software DAISY readers such as AMIS or other commercially available ones.

5.2 Portable DAISY readers

The DAISY book created by the software is compatible with most commercial portable DAISY readers.

A user may easily transfer the digital talking book to a portable DAISY reader. The process is simple and is described in the accompanying video[5]

5.3 Mobile phones

AccessibleNews DAISY will soon be launched as a mobile phone application. With this tool, a user can get the website content in DAISY directly on a mobile phone, without having to use the computer.

6. CONCLUSION

Initial user feedback about the AccessibleNews DAISY software indicates that rendering web-content in DAISY format improves

the usability significantly. The authors, therefore, feel that the software can be very useful to many people having blindness or print disability.

7. ACKNOWLEDGMENTS

Our sincere thanks to Mr Pranav Lal for his contribution in testing the software, and giving valuable insights and feedback. We are also thankful to Mr Srinivasu Chakravathula, Mr. Harish Kotian, Mr Dipendra Manocha, Mr. Kiran Kaja and many others for their enthusiastic support and encouragement.

8. REFERENCES

- [1] Accessible Systems, an Assistive Technology firm based in Mumbai, India. – <http://www.accessiblenews.co.in>
- [2] DAISY Consortium – <http://www.daisy.org>
- [3] DAISY 2.02 specifications - http://www.daisy.org/z3986/specifications/daisy_202.html?q=publications/specifications/daisy_202.html
- [4] Video – Using AccessibleNews Daisy - <http://www.youtube.com/watch?v=ZkA0wHNp97E>
- [5] Video – Exporting to portable DAISY players - <http://www.youtube.com/watch?v=U1XFPOoupKE>