

Sharing 3 years experience in supplying on-line (DAISY) players

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Abstract

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Solutions Radio has developed an on-line player to easily access a variety of content on the Internet. Content such as: Podcasts, radio stations, talking (DAISY) books, tmagazines, daily talking newspapers, church services, TV subtitles etc.

ORIONWebbox uses the Internet, but does not require a computer.

In the past three years a number of projects have been realised with the ORIONwebbox. We would like to share these:

In the Netherlands access to the library of Loket-aangepast-lezen in close co-operation with Dedicon.

In the UK, personalised playlist of radio stations, podcasts and talking magazines with British Wireless for the Blind Fund.

1 Introduction

When my business partner Karel Raven presented a device, the first on-line player of radio stations and DAISY books, at a meeting of the DAISY Consortium in Melbourne, Australia, he clearly remembers that those present were dumbfounded at the simplicity of operation of the unit. The unit was connected to Internet and then by pressing only one button on the ORIONWebbox multi media content could be accessed. Not only spoken books, spoken magazines, but also podcasts and radio stations.

But that was nearly 3 years ago and we have come a long way since then. Besides finetuning the spoken playlist we have now also have spoken subtitling of foreign language TV programmes. This is of particular interest to us in Holland and other smaller countries where foreign films are not dubbed, but sub-titled.

In the meantime a number of pilot projects have taken place in different countries resulting in an equal number of reports with their findings. And whether you look at the very first pilot project or the most recent ones, there is one very important consistency and that is that our webbox is regarded highly. In my presentation I will refer to this device as webradio, webbox, ORIONWebbox. It is one and the same device. I will tell you something about the device itself, some pilot projects, a live demo and some current projects.

2 Hardware

First of all I want to share some hardware features of the webbox with you.

The ORIONWebbox has only 5 push buttons and one dial. The push buttons have only ONE function, which makes it easy to use. It has a display, which has its uses, such as fault recognition if the device is in trouble. (there is often a family member or someone who can read the message if necessary...)

On the back of the unit are a number of connectors.

From left to right: a connection for the telephone (optional), then one for headphones, next to that Cinch connectors for the hifi system, then one broadband input (the optional WiFi antenna is built in the unit) and lastly a power connection. There is also a slot for an SD card.

On top of the unit is a very good loudspeaker. There is also a remote control, which duplicates all the functions of the buttons on the webbox itself.

When our company developed its first Internet streaming device 6 years ago, it was because we participated in a tender for church radio. Three parameters of the specifications where: simple to connect, simple to use, and using the Internet. This left us no choice, but to use streaming technology. If a live church service were to be listened to simultaneously by a homebound person, then it was impossible to download. However, if we recorded and archived the service on a server it also could be listened to at a later stage. This by the way is a podcast.

It also forced us to look closely at the user interface. In fact we adopted the way the controls of a NOKIA mobile phone and BlackBerry work. We have found, and this has been confirmed by libraries and users, that this is what is needed for leisure reading for all kinds of talking books, magazines and newspapers. What is also important is that for the user the keys react in a consistent way, whether choosing between a radio station or talking book, or choosing a podcast or navigating in a daily paper.

3 Why streaming?

Thanks to faster processors, faster data networks, even wireless ones, streaming became a possibility and even very desirable.

Using streaming technology has many advantages and I will name a few:

- Your information is **instantly** available as opposed to downloading which costs time
- It offers a form of **safety and security**, because once the stream is switched off you are left with silence. For those who wish to protect their copyright it is a safer way than downloading, which makes content easy to copy.
- The information is always **current** and up-to-date as opposed to having to wait for a CD Rom or tape cassette or USB stick or SD card.
- For those of us concerned with the environment streaming technology is very **green!** Like the air waves of a radio station they are either there or not, no storage device is needed, duplicated, distributed and then destroyed.

Having completed the church project we looked for further applications for closed-user-groups and found them in instore radio, expat radio and radio for the visually impaired.

4 Pilot projects

Let me tell you how this came about. A partially sighted person visited a friend who had a church radio. He was so amazed at how simple this device was to use that he contacted us, the manufacturer, to explore the possibility of developing it a little more for his own market.

This became our first pilot project for the VI market, 50 people participated in it and were asked to give their input. And they certainly did. We had to rewrite some software and were able to implement all the requirements. Mainly on how they would like to navigate in audio content and what content they would like to hear. The result is a unit that is that simple to use.

Nearly simultaneously another test took place. It was the most extensive test. It took place in the UK under the auspices of RNIB. RNIB selected 100 visually impaired persons, ranging from all ages. Some having a computer and others not and gave them an ORIONWebbox to trial. By the way ORION is an acronym for On line Reading and Information on demand. Together with RNIB an interesting selection of content was offered varying from spoken books, magazines, radio stations and podcasts.

After 6 months trial all participants took part in an evaluation held by telephone each lasting one and a half hours in which an extensive list of questions was posed regarding their experience with the unit and what they missed.

The most important conclusions were:

1. 89% of those interviewed would be interested in receiving information and entertainment using a product of this type in the future
2. 85% was impressed with this method of accessing the Internet
3. only 3% mentioned that they found navigation difficult or rather got lost in the menu
4. RNIB recognised that if services were to be offered in this way, it would be a strategic decision

5 New Projects (BWBF)

A few months after the Evaluation report saw the light another charity in the UK, called the British Wireless for the Blind Fund, decided that this was the way to go in the future. In April 2008 BWBF approached us to become our UK partner and this resulted in a first order of a thousand units with a wireless Internet connection.

British Wireless for the Blind Fund, was founded by a British soldier blinded during the Boer War. In keeping with BWBF's charitable mission, radios are available on free, permanent loan to registered blind or partially sighted people resident in the UK, over the age of 8 and who meet pre-set criteria.

In keeping with their range of radios such as the CONCERTO and DUET the tailor-made version of the webbox for BWBF is called SONATA and only available in the UK. As the remit of BWBF is supplying a radio to those in need, the primary service they offer is Internet Radio. In the meantime however, thanks to our changing world and thanks to the vision of the Board of this charity, it was agreed that more content could be offered to the listener, because you literally only need ONE and the SAME device to listen to radio, podcasts, talking books,

magazines, newspapers and any other audio content as long as it is available on the Internet.

BWBF's new service really opens up a new world of entertainment, education and information to those with sight loss. Besides the **Internet Radio service** offered by BWBF, after all radio is their core business, I would like to highlight two other particular services which they offer. One is TNAUK, the **Talking Newspapers Association UK** and the other is the local talking newspapers. TNAUK offers all the national newspapers and approximately two hundred and fifty magazines or periodicals on-line. That is to say accessible either with a PC or can be heard on the SONATA. The current issue of a magazine and the previous one can be accessed. Whether this be Computer Magazine or Readers Digest, whether Farmer's weekly or National Geographic. And all spoken with a human voice.

The **local talking newspaper** is a different phenomenon. At the moment in the UK there are more than 500 local weekly newspapers that are read by volunteers every week and then copied onto tape cassettes or sometimes CDs and then distributed by hand from home to home. Many of these organisations are considering the step to go digital and are thinking of skipping the step to CD and going on-line straightaway. This saves an enormous amount of duplicating costs. When questioned, many with a visual impairment tell us that what they miss most is their local news. National and regional news is more easily available. So they are very happy with their local talking newspaper, with news about Mrs Smith up the road having won the best garden competition. Content can be personalised and each Webbox need only receive the relevant local newspaper. This personalization even goes so far, that if you really wish to do so, you can a compile your own playlist with radio stations and podcasts.

6 Live DEMO

At this stage I would like to give you a demonstration of the UK playlist and also an example of TNAUK content. Just watch I am only using one button to confirm my choice. That is the OK button. The other buttons are for the more experienced users to speed up access to the menu.

DEMO

At the moment there are on-going projects in the Netherlands, Norway, Finland and the USA to test access to the daily newspaper using the webbox and a TTS engine.

7 Library Project in the Netherlands

I want to share one very exciting project with you and that is the one in my home country, the Netherlands. Since April the fourth of this year, it is that recent, our company has in close co-operation with Dedicon, producer of DAISY

CDs and an organisation called Loket aangepast-lezen, which is the national service organisation of public libraries for those with a reading disability, launched the world's first streaming access service to an on-line library without using a computer! That is quite a mouthful. This means that right now if you have an ORIONWebbox and are registered with this organisation you have direct access to the on-line catalogue which consists of 9000 book titles. Every month one hundred new titles are being added to the collection.

This on-line catalogue is accessible using a PC. With a mouse click you can allocate a few books to the virtual bookshelf of the webbox. Or you can phone Loket aangepast-lezen and ask them to add a few books to your bookshelf. And when next you switch on the webbox a few seconds later, the books you asked for can be listened to. The next step will be that the titles of new books are read out and by pressing the OK button you confirm that you want that book to be added to your virtual bookshelf. Remember my first words, what if you do not have a computer or cannot work with one. Well, then here is the solution.

I think you will all agree with me that this is a world first. A unit that can access spoken books being streamed over the Internet, without a PC!

8 Strengths of ORIONWebbox

In closing, what are the strengths of the ORIONWebbox?

- 1) That you have **immediate access** to the most up-to-date information ON-LINE and ON-DEMAND. You no longer have to wait for the library to send you a CD-Rom or tape from by post nor do you have to download it. If you want to hear the weather forecast or news when it suits you, you would go to the weather forecast podcast or the news podcast. No longer do you have to wait for the hour or half hour on the radio, but you can listen when *you* want to. That is what on-demand means.
- 2) It is an **integrated solution**, which gives you access to cross media content. You can access live streams such as radio stations, or files from the library for audio books, talking newspaper or plays with or without DAISY navigation and podcasts from different sources. But you could also listen to spoken subtitles of TV programs or descriptive audio. The possibilities are endless. In fact there are no limits as long it is about audio.
- 3) The ORIONWebbox is managed **remotely**. The settings, firmware upgrade, the Interactive Audible Programme Guide and of course the content of each individual unit can be controlled, supported and maintained over the network.
- 4) I have said it quite a few times, but the Keyword for our main target group to be able to use all these possibilities is **simplicity**
- 5) Let me not forget to mention that when reading a book you can place a **bookmark** or pre-select a radio station or podcast as your favourite. One of the items in the menu is "My Bookmarks". If you go there you will find your favourite programs and books. Press the OK button and reading will be resumed from the exact spot where you left off. And if you want to scroll back in time to listen to the last sentence, then this too is possible,

- 6) All these wonderful things are only possible because we use a **client-server** technology with standard Internet protocols for communication, authentication, the play list set up, audio streaming and the remote management. The ORIONWebbox is not a stand-alone device, but part of a system.
- 7) We have a powerful management tool to manage the device, the playlist, the content and more.
- 8) The system is able to generate **statistical reports** on the usage of content.
- 9) And don't forget we're continuing to **develop options** in this device. But I am keeping those top secret for the time being.

With in total more than 25.000 webradios out in the field, we have quite a bit of experience! We have also been able to share this experience with the technical working group of the DAISY Consortium, presently defining the protocol on access to libraries. We are a friend of the DAISY Consortium.

We can claim that our solution is simple to use and requires absolutely no technical knowledge. It is a one button operation. Senior citizens also find it easy to use. Our oldest customer is a 97 year old lady. It is the world's first Internet streaming device that can access more than radio stations and podcasts.

Talking books, magazines and even the **daily** newspaper can be accessed.

It is even easier to navigate through DAISY content. With the ORIONWebbox you need not change the levels, this is done automatically when you press that one button, the OK button.

Let me close off by thanking you for your kind attention!