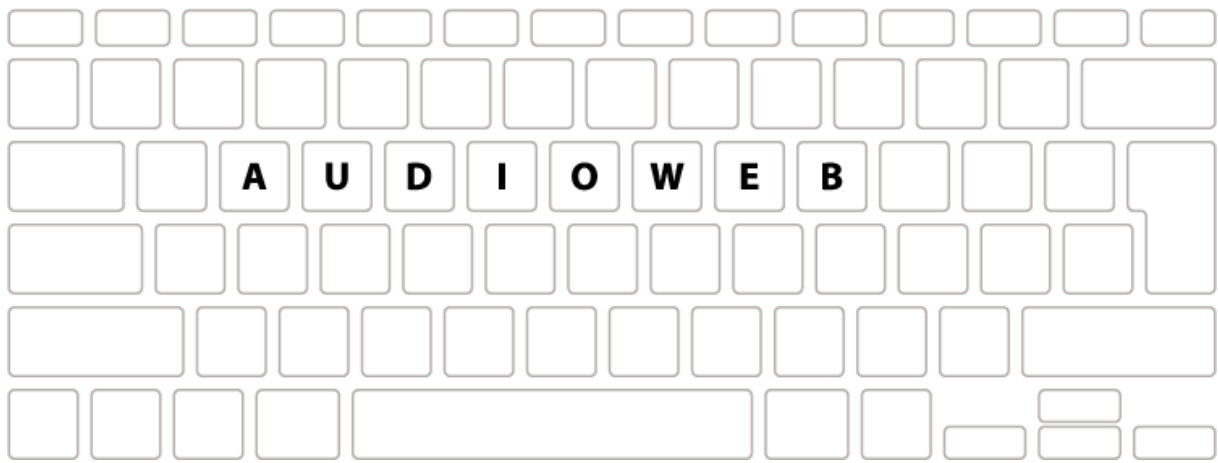




Ars Electronica - the Next Idea

[Production Plan]

Current existing prototype

The current prototype of AudioWeb is a fully interactive audio browser which has successfully used and tested by sighted and visually impaired people.

It is currently limited to the BBC sport website, where it can access and speak the most recent 100 pages on that site. It speaks the headings, subheadings and the stories on these pages, and proves the concept of embellishing the audio as it uses 3 different voices, multiple sound effects, and music to convey the context. It parses XML from the BBC's RSS feeds, and it successfully parses html content from the BBC mobile site (which is much better structured and far easier to interpret, while still containing the majority of the content).

AudioWeb also has a non-interactive video to show the vision for the product as it will be in the near future. This video illustrates the following changes that are planned for the next stage of production:

- Supporting search such as Google, so that the web can be searched through audio
- Implementing speech recognition so that the user can input text by speaking instead of typing - closing the loop on the speaking / listening experience
- Use of commercially available voices instead of the free voices that ship with OEM hardware. These voices significantly improve the quality of the speech, making it easier on the ear and more understandable

Plan for production

In order of priority, and also largely in sequential order too, the following are the steps to having a beta product, and then building on it to make it more useful, valuable and usable:

1. Build the first cross-platform product

The working prototype is currently only installed and working on one machine, and has been built and iterated using the Processing programming language. The first step is to rebuild the product from scratch in another language, such that it is completely cross platform, and can be given first to beta testers, and then launched more widely as a beta version for testing and feedback. By Cross-platform, we mean that it will

work on Mac, Windows and Linux desktops, and on iOS, Android and other smartphone operating systems.

This has already been researched and initial steps made into trialling Java, and then Python as the basis for a cross platform product. However this is likely to be a large task, and is expected to take more than half of the time that the stipend from Ars Electronica pays for.

Help from the Ars Electronica Futurelab Personnel would be much appreciated with this, and with following tasks. It is not clear at this stage exactly how we could interface and divide up work, but it is a discussion I want to have with the lab, and strategic, tactical or even programming help would all be greatly valued.

2. Widen the number of sites it covers

After step 1 the beta product should work across the whole BBC news and sport websites (it will parse html from the mobile sites). At this stage the plan is to extend the product to work on a range of 5 - 10 websites in total, and thus present a "curated web" of the most heavily trafficked websites to be accessible in audio. These will be the largest news and newspaper websites, wikipedia, and potentially a weather site, a TV and radio listings, and a local "what's on" website such as timeout (London).

Interviews with users (both Visually impaired and fully sighted) may be included in this stage to help define the most useful top 10 sites to implement at this stage.

2.b. Implement search - support Google for the curated sites

It could be argued that the web is only useful today thanks to Google, and search. Thus the plan is to implement Google at this stage, and allow the user to search within the curated (~10) sites that we offer with AudioWeb at this stage.

There is no point in supporting the whole of Google, as it would just link the user to sites that we have not "Audified" yet, thus sending people down a black hole with no audio support. As a way to avoid this from happening we will make sure that we use the Google advanced search to only return results for the ~10 sites we will be supporting. For instance if we wanted to search for Abraham Lincoln, and we were just supporting the BBC in Audio (ie. at the very start) then we would convert the user's search into the following search term:

"abraham lincoln site:bbc.co.uk/mobile/"

Thus we could then link the user to the right pages on the audified BBC mobile site which had references to Abraham Lincoln.

3. Audify the wider web, through machine learning

From the first 10 sites, we will have built our own database and files to help understand and prioritise the content on the mobile sites (what order to present written information in, what level of heading/subheading each piece of text is, etcetc). This existing database can be fed into a machine learning algorithm, and used to extend the database and widen the number of sites that we serve. This is how we will start to extend and grow AudioWeb, such that it starts to cover large swathes of web content.

4. Continue development of new User Interaction paradigms

We have already developed navigation tools which will allow the user to skip between stories and go deeper/shallower on a site. We have an "accelerator" through which the user can dynamically alter the speed, creating the audio equivalent of being able to skim-read a page of text.

However there is much more development of UI and UX which is likely to add great value; from things like cut/copy/paste, to a pronunciation checker (the audio equivalent of a spell-checker) it is at this stage that we would like to extend and build the available tools for interaction with audio, and the creation and editing of audio content for publishing/sending onto the web or via email.

It is unlikely that we get the previous tasks completed, and get onto this UI / UX work package with the Ars Electronica Next Idea prize alone. However this does paint a picture of where the project will be going post Ars Electronica, when future funding is secured and the initial development tasks are done.

5. Name, logo, brand, identity - videos, press and fundraising

In tandem with the above, the plan is to rebrand AudioWeb as Matopi (taken from the middle of the word Onomatopoeia - a word that sounds like its name), and to build the brand identity, from the logo to the fonts and colourschemes, not to mention of course the audio brand identity.

I will be working on making videos, getting press coverage, and applying for the next tranche of funding and investment for the idea, in order to make sure that it keeps growing and moving forwards.

6. Implement commercial voices

One last (possibly longer term) goal is to negotiate a deal to bundle in a very good quality commercial voice into the product, such that it is a better experience, and easier to understand. This is a commercial challenge, in that it requires a good price to be negotiated, and to work with the voice vendors to allow a high volume, low price model. It is also a commercial challenge, as few of the voices are likely to be cross platform, which may limit the choice of voices that we have.