

Producing DAISY talking books without manual intervention

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Abstract

Is it possible produce DAISY talking books of acceptable quality without manually adjusting the reading order, inserting page numbers, fine-tuning lexicons, and so on? This question is especially urgent with regard to our open educational resources published on the OpenLearn website. This presentation recounts our experiences of a fully automated production process for DAISY talking books using only open source tools.

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This paper explores the potential and limitations of DAISY talking books produced in a fully automated way, using only tools that are free and open source. The Open University has developed a production process and workflow for DAISY talking books that blends automation, manual post-production and proprietary tools to produce highly accessible talking books with an absolute minimum of infelicities and mispronunciations. What prompted me to investigate the possibility of automating the process is the fact that we are unlikely to obtain funding to invest in DAISY talking books for our open educational resources, online courses released under a Creative Commons license. The question is: what is left if we take the step from 99 to 100 per cent automation, bearing in mind that the alternative is not being able to offer a DAISY talking book at all?

Most of the university's new teaching materials and all of its open educational resources conform to a single schema, so we should be in a good position to set up an automated workflow. The limitation is less the suitability of the input documents – which are tagged and structured for dual output to web and print – than the inherent difficulty of some of features commonly requested by teachers and students. Chief among these is the requirement to indicate page breaks. As it is not possible to predict where pages will break – pagination happens much later in the process – this requirement alone makes full automation impossible.

Is a talking book without page numbers worth having? One possible answer is that it can be provided we refer to sections rather than pages in our teaching materials, and tutors do the same. This still does not overcome the thorny issue of referencing conventions in students' essays: we typically require students to reference page numbers in their essays, but one might argue that this requirement could be dropped for students who work from materials without page numbers.

If we accept that certain compromises are inevitable, technical solutions are readily available. DAISY Pipeline does the heavy lifting. All that is required in terms of customisation is a suitable editing environment and a stylesheet that converts Open University XML to a format that Pipeline supports. The demonstration process is implemented as an extension to an existing open source XML editor, XML Copy Editor. The primary outputs are a full DAISY talking book and an MP3 album with user-friendly track titles and cover artwork. The editor and the extension are available at <http://xml-copy-editor.sourceforge.net>.