

Case Study: Impelsys Talking eBooks.

Impelsys Inc.

<http://www.impelsys.com>

The Project:

The client, a leading supplemental publisher, was looking at methods to increase revenue and enhance their existing content. They contracted with Impelsys in January 2007. After an initial round of discussions and going through research on learning, Impelsys felt that the best way to achieve the publisher's goals was to convert their content into e-books with audio and read-along facility. The strategy was to develop Talking eBooks for their ELL (English Language Learner) and ESL (English as Second Language) segments. The publisher had certain specific requirements keeping in mind their end users.

These included a simple user interface, synchronized audio and assessments. Impelsys decided on a digital strategy wherein the Talking eBooks will be delivered in an interactive digital format using their **Virtual Pages™** application. **Virtual Pages™** enables delivery of book content in an interactive format, with minimal content conversion effort.

Customization included audio playback and synchronized text highlighting. The concept of the Book Club, where a student registers to receive a different book every month, was built upon to allow the student member to receive an audio book download every month.

Impelsys' Processes:

The production process started with splitting the input PDF into page level PDF that are then optimized to have layers. This optimization allows highlighting to occur in a separate layer. The resultant PDF files are converted into Flash files. The text is also extracted from the PDF files. Audio for each page is converted as MP3 files and the audio intervals are extracted. The association of the audio with the word highlighting is established through optimized content processing workflows. This process also generates an XML that is used in Virtual Pages to playback the audio with the associated text being highlighted.

Problems were solved by using technology and our learning of over 5 years in doing projects for publishers. An example can be found in the process of associating the word highlighting with the audio, most implementations will do this process manually. We increased the effectiveness and accuracy of this process to extremely high levels by using our in-house tools and automation. This also brings down the cost of implementing for our clients and creates an opportunity for us to offer our solutions at a price that is hard to beat. Creating multimedia books has never been so easy or cost effective!

Publisher Requirements:

- Simple User Interface
- Synchronized Audio
- Assessments

Impelsys Solutions:

- User friendly navigation and display:

Large and children friendly buttons were implemented. These buttons clearly indicate their purpose and have large call-out text on mouse-over. The real book metaphor was carried forward with page-turning effect to aid familiarity of a book for children.

- Audio synchronization without losing focus:

Audio is synchronized to play and pause as required when pop-up windows appeared. The audio pauses on a window pop-up and continues to play once the window is closed. This makes sure that the same continuity in narration is maintained through out the reading experience.

- Assessments

The client wanted a method to ensure that learning was measurable and captured when children used the product. Talking eBooks incorporates assessments at each page-level along with scoring. This makes sure that learning is re-stressed and refreshed as children read through the book. Reports of scores by individual students are made available to teachers to enable to pay special attention to slow learners.