



MASARYK UNIVERSITY

SUPPORT CENTRE FOR STUDENTS WITH SPECIAL NEEDS

Hybrid book 3.0

 Teiresiás

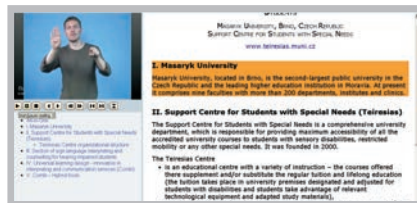
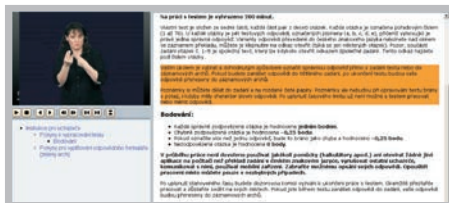
Hybrid book 3.0

The hybrid book is an **electronic publication format** that aims to make information accessible to readers with any information channel impairments and to all those wishing to work actively with the contents of documents.


This technology, first introduced to students of Masaryk University in 2002, has over the last ten years developed into its third generation. Its original purpose – to facilitate blind students' access to study materials – has over the last years been considerably modified, especially by extending the target group of users. The hybrid book 3.0 is a document format designed not only for the **visually impaired**, but equally for **hearing impaired** users.

Basic characteristics

- consists of the content proper in a **textual, sound and video version**
 - an audio recording as an interpretation of the text for the visually impaired
 - a video recording of a translation of the text into sign language
- **synchronized browsing** through all records and intelligent navigation in their contents
- there are many possible ways of browsing the book
 - automated browsing – scrolling
 - simultaneous playback of all the records displayed
 - hybrid reading – moving freely between the individual records
 - displaying isolated records or selected passages



Hybrid book reader

- **web application** – its prototype at  www.teiresias.muni.cz/hybridbook
- synchronized playback of all types of records
- **navigation** in the document through a hierarchical structure and direct navigation functions
- **continuous highlighting** of the currently displayed passage in the electronic text
- **compatibility** with assistive technologies, in particular screen readers

Structure of the hybrid book and the technology used

- the content proper is stored in a text, video and audio version and complemented with synchronization data
- **data formats:**
 - HTML data format for text
 - the FLV format for video
 - the MP3 or FLV format for the audio recording
 - the XML format for the synchronization data
- synchronization of records regardless of the data format; their content must be sequentially arranged

Creating documents

- due to the wide variety of formats, the content is created at different places
- **the final compilation** and possible further adjustments are done by a special application which enables (to a great extent automatically) to synchronize the multimedia records easily

Further development

- **expanded navigation in tabular structures**, including intelligent navigation in both simple and complex tables
- integration of components of an electronic text in the **MathML format**
- **interactive document** – a subsystem enabling cooperation in creating multimedia documents, e.g. users can insert comments in textual, audio or video version

Technology specification

-  www.teiresias.muni.cz/hk3/reference/3.0/manual.html



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