

## Improving many kinds of access for blind users Services and products from the DZB

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### Abstract

A short description of the history and the present state of the DZB will open the presentation. The wide range of library services and products like tactile maps and books for children will be displayed. New projects for semi-automatic transformation of music scores into Braille and non-fiction books in the DAISY format are the main part of the presentation. The importance of collaboration with publishers and other serving the blind libraries is also in the focus.

### Body of the presentation

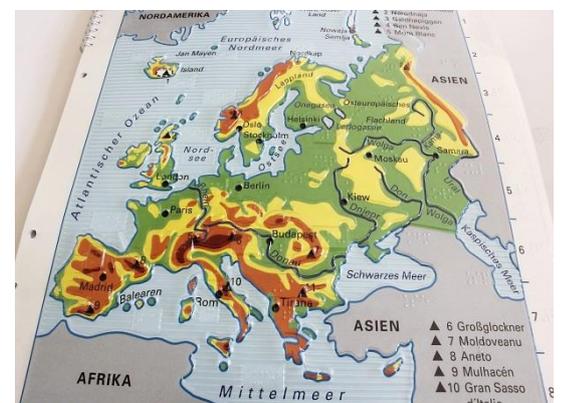
#### The DZB– history and goals

The DZB (Deutsche Zentralbücherei für Blinde), the German Central Library for the Blind, is situated in Leipzig, a vivid city in the federal state of Saxony, Central Germany. The main task is to make printed information accessible to blind and partially sighted people. The DZB is all in one, a library, a publishing house and a production centre for braille and talking books. It was founded in 1894 as a society for supplying the blind with braille literature and working opportunities. Nowadays it is the oldest public library for the blind in Germany.

Today the DZB belongs to the state government of Saxony and is financed by it. The library is a part of MEDIBUS (Media Association of blind and partially sighted persons in the German speaking countries; Mediengemeinschaft für blinde und sehbehinderte Menschen e. V.). MEDIBUS is a body of 10 organizations, which realize the process of production and exchange for accessible books in Braille and the DAISY format.

#### Provided formats and services

Due to the German copyright law only blind and partially sighted members use the library's different services currently. The library comprises about 40,000 volumes: braille books, braille music, talking books and reliefs such as geographical maps and calendars. The DZB edits and publishes 12 magazines in braille and audio formats. LOUIS (Leipzig Online Information Service; Leipziger Online-Unterstützungs- und Informationsservice) was established in 1999 for providing blind and partially sighted computer users with advice and information on new media. Additionally our scientific library collects published information about blindness related topics.



Since 2002 the DZB has been lending out DAISY books. This technique is being enhanced in close cooperation with the DAISY Consortium. Talking books in older formats were successively transferred into DAISY. In 2010 this transmission process was finalized. Currently the produced 25.000 books are in a structured audio format and can be used by standard DAISY players and personal computers.

The department of relief technologies uses the method of computer-controlled plotter cutting. In exemplary cooperation with a Thuringian publishing house we produce geographical maps, which can be used by blind, partially sighted and sighted people alike. Also a variety of tactile books for children is produced by the DZB. These books are made from different types of haptic materials for young children, who start reading Braille. The use of these books should be supported by teachers and parents. So they help the beginners to become more experienced with this particular way of reading step by step.



### Braille and music scores

Additionally to the regular Braille production at the DZB a new service for blind musicians was established in 2009. Via internet a blind musician can translate a music score from the visual release into a Braille music score notation. To make a nearly automated translation of visual music scores into Braille available, a powerful software tool was developed during the project “DaCapo” within six years. A music score recognition software creates an XML file, which can be translated into the braille music notation. A proofreader is taking care of the formatting and the printout of the Braille sheets.

### Access to non-fiction materials

Encouraged by the success of the “DaCapo” project for music scores in 2009 the DZB was starting an ambitious new project, called “Leibniz”. The main goal is to improve the access to non-fiction literature in different formats for individual needs. The main tools of the software will be:

- A core recognition package, which translates the file provided by the publisher into an internal XML format, called Leibniz-XML.
- The Leibniz-XML dates can be manipulated with a powerful structuring and editing tool, called L-Edit.

The development of the software is not finished yet. A mile stone of the project will be reached at the end of the year. The first version of the tools is currently tested in the Braille translation department and will make it possible to translate an easy structured book semi-automatically into a Braille and an e-book format. In future developments the tools will be improved to make a production of non-fiction books in accessible formats more effective.

### Conclusion

The DAISY technology, e-books and projects like “DaCapo” and “Leibniz” show the potential of the information technology to improve the access to information for blind and partially sighted persons dramatically. It is also important to combine the new ways of visually participation with a wide range of products like Braille on paper, tactile books or maps to make sure, that persons with print disabilities learn how to handle real materials. As far as I am concerned I am very happy to be the head of an organization, which offers visually and material products and services.

### References

E-Accessibility-Day in Paris, April 2010:

Homepage: <http://www.kahlisch.de/de/veroeffentlichungen/internationale-tagungsbeitraege>; Document: [»Leibniz« - a project to make non-fiction publications accessible](#)

DAISY International Technical Conference in Leipzig, September 2009:

Homepage: <http://www.daisy2009.de/en/programme/international-technical-conference.html>;

Document: [Increasing availability to non-fiction publications in Braille, DAISY and large print \(.ppt, 9,2MB\)](#)

Bach - International Symposium on Access to braille music in Leipzig, November 2005:

Homepage: <http://www.kahlisch.de/de/veroeffentlichungen/internationale-tagungsbeitraege>;

Document: [Future development on Braille music transcription in Leipzig \(pdf\)](#)

End of the presentation

Information about the author

Dr. Thomas Kahlisch became blind when he was 14 years old. He studied computer science at the universities of Dresden and Karlsruhe and wrote his PhD thesis about human-computer interaction.

Since 1999 Dr. Thomas Kahlisch is the director of the German Central Library for the Blind in Leipzig (DZB). The DZB, founded in 1894, is the oldest public library service for blind and visually impaired persons in Germany.

He is a member of the board of MEDIBUS, of the associations for the special library services in Germany, and of the board of the German association of blind and visually impaired persons DBSV (Deutscher Blinden- und Sehbehindertenverband e. V.).

Dr. Thomas Kahlisch is involved in DAISY working groups and activities. He has published many articles about accessibility and its improvement for persons with disabilities.

In 2008 he started working as a SC member of the IFLA in the section "Libraries Serving Persons with Print Disabilities" (LPD). Since 2009 he has been joining the World Braille Council of the World Blind Union (WBU).