

# Copyright and Accessibility in Hungary

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# Brief Introduction

- LSTR, the birthplace of talking devices in Hungary
- 1985 BraiLab Basic
- Speech synthesis
- Microcomputing
- 77 Elektronika
- Assistive technology



# Historic Overview

CP/M based portable notetaker with floppy drive

1987 Brailab Plus

Text processing



- Braille/Ink printing
- Programming in Pascal, C, Dbase, Basic etc.
- Commandline environment with full speech support

# Historic Overview

Speech adapter for IBM compatible PC-s

1991 Brailab PC

Equivalent access to MS-DOS



- Internet access: e-mail, ftp, web browsing and talking terminal emulator
- Complex CD law base
- Recognita OCR
- Hybrid talking books



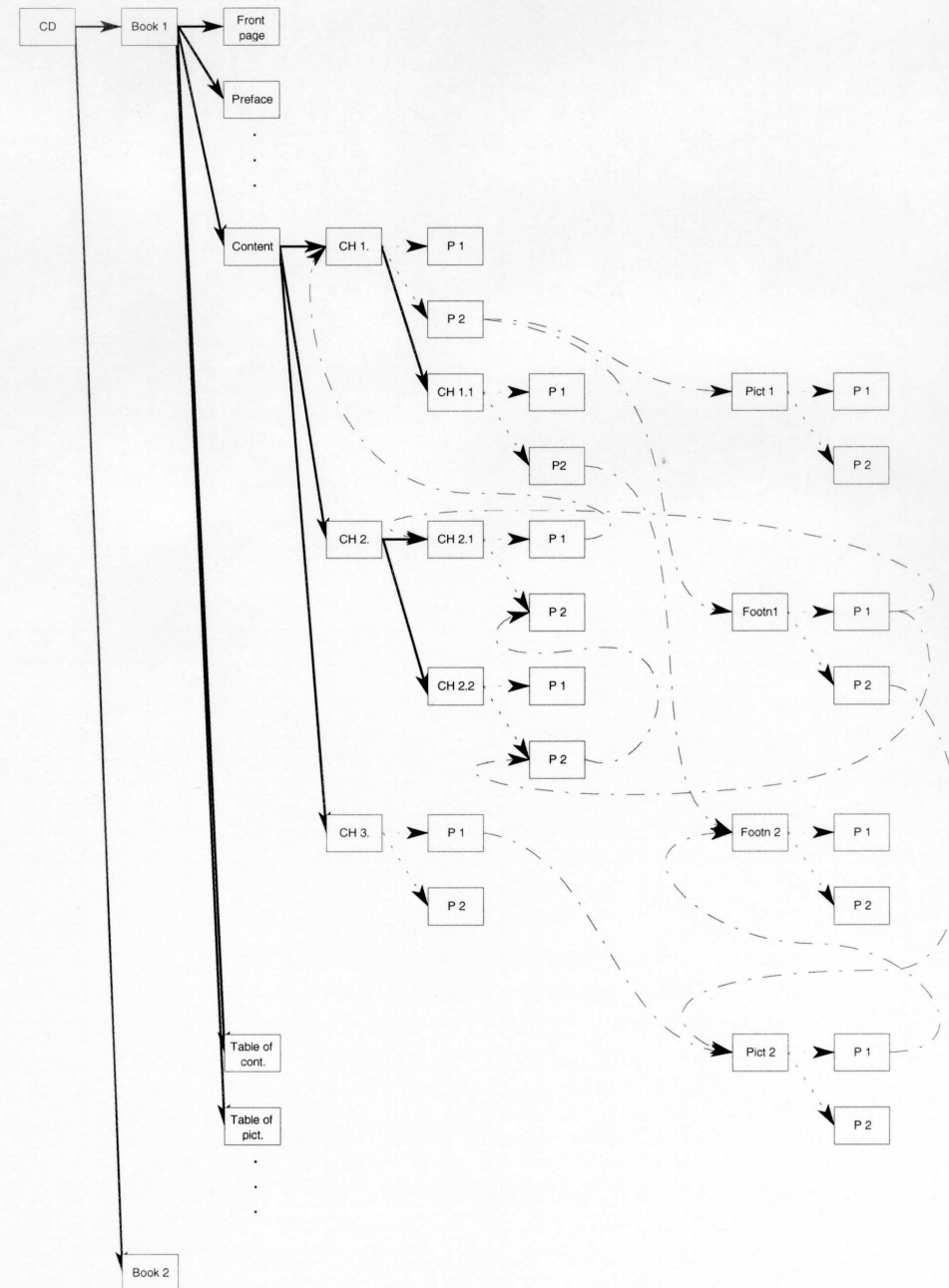
# Historic Overview

Digital talking book  
technology

Synchronised storage of  
text and audio on a CDrom

Blind friendly navigation  
and book reading

**3T-Book Talking Tactile  
Text**



# Historic Overview

Book Reader, stand-alone Hungarian speaking portable computer

1995

- With Braille keyboard
- Built in CD-ROM drive
- Speech output
- Text editor
- Calculator
- Hybrid book reader



# Historic Overview

- Java powered device
- Braille input
- With speech output
- Text editor, Calculator
- Hybrid book reader
- MP3 player, memo recorder
- Phone, SMS, WiFi, Web, email, contacts.



# Accessibility in the Past Decade

- Email, FTP & web browsing with free MSDOS software and speech support
- Accessing the LAN at the work place
- Leisure time activities: OCR, E-book reading, printing, MIDI sequencing, accessible games, etc.
- Until the mid90s, this was all possible at a neglectable cost with nearly equivalent conditions for the sighted and the blind.
- As Windows began spreading, squeezed out DOS and all command line environments, blind PC users couldn't keep the pace so they got marginalized by the end of the decade.
- Most of them continued to use their old MSDOS, speech adapter and special software until the late 90s.



# Changing to Windows

- KFKI's experimental system for Window-eyes & Jaws to access Windows in Hungarian by Brailab PC
- The soundcard becoming a standard component of computers -->
- Software speech output begins to dominate, squeezes out hardware solutions
- Speech engines first appear in English etc., then in Hungarian (eg. Profivox)
- Adaptation to blind demands varies greatly
- A Hungarian speech engine was first integrated into Jaws in 2001 and became accessible more widely in 2003

## Comparison:

**DOS**: Screen reader: free, speech hardware < \$50.

**WIN**: Screen reader for a few years period > \$1500.

# Accessibility and the Web

- In the beginning, all sites were fully accessible for the blind, since they only contained textual information.
- The only obstacle still today is when the graphical possibilities are abused on a site
- This is an obstacle for sighted visitors too.

# Accessibility Criteria for Web Sites

- Provide information in text not in graphic (bitmap)

Label graphical links with the <alt> tag or refer to purpose by the filename (e.g., "latest\_news.gif" instead of "link01.gif")

- Allow keyboard access to all services (not only mouse)
- Refrain from frequent page refreshing
- The following things must appear near the top of the page:

Link to text only or print-friendly version

"Skip navigation links" option

Important information and news

# Accessibility Criteria for Web Sites

- Use shorter text lines
- Refrain from complicated tables
- Put the most important information at or near the beginning of lines in lists and tables
- Prefer multiple short pages to a single long page  
a series of short pages instead of a very long page
- Insert blank line(s) to separate groups of related information
- Indicate importance by verbose means not only by colors



# A Good Example

As it is shown in Internet Explorer

The screenshot shows the BBC World Service website. At the top, there is a navigation bar with links for Home, News, Sport, Radio, TV, Weather, and Languages. A search box is located on the right. Below the navigation bar is the BBC World Service logo and a link to 'Open BBC Radio Player'. The main content area is divided into several sections: 'WORLD NEWS' featuring a story about UN troops in Ivory Coast; 'LISTEN TO WORLD SERVICE' with a 'LISTEN LIVE Newshour' button; 'IN DEPTH' with a story about China's Guangdong province; 'HAVE YOUR SAY' with a poll about Iran; 'RADIO PROGRAMMES' with an 'A-Z List' dropdown; 'RADIO PLAYER' with a search box for programmes; and 'RADIO SCHEDULES' with a search box for cities. A sidebar on the left contains a 'Radio home' menu and a 'World Service' menu with various program categories. A 'NEWS IN 33 LANGUAGES' section is also present on the right side.

**BBC** Home News Sport Radio TV Weather Languages Search

**BBC WORLD SERVICE** Open BBC Radio Player

Help | Text only

Radio home  
**World Service**  
Programmes  
Radio Schedules  
Languages  
Learning English

**World News**  
Africa  
Americas  
Asia-Pacific  
Europe  
Middle East  
South Asia  
UK  
Business  
Health  
Science/Nature  
Technology  
Entertainment  
Have Your Say  
Country Profiles  
In Depth

RELATED SITES  
**BBC WEATHER**  
**BBC SPORT**

**WORLD NEWS**

 **UN troops flee Ivory Coast town**  
At least four die in Ivory Coast as UN soldiers clash with the president's supporters.

**OTHER TOP STORIES**

- ▶ \$1.9bn pledged for bird flu fight
- ▶ Tokyo troubles hit Europe markets

**NEWS IN 33 LANGUAGES**

Choose a language  GO

عربي	فارسی	اردو
中文	हिन्दी	پښتو
РУССКИЙ	TÜRKÇE	SHQIP
MUNDO	УКРАЇНЬСЬКА	SRPSKI
BRASIL	TIẾNG VIỆT	বাংলা
ROMÂNĂ	INDONESIA	SOMALI

▶ More languages

**LISTEN TO WORLD SERVICE**

 **LISTEN LIVE Newshour**

- ▶ Listen to World News Bulletin
- ▶ Listen to Sport Bulletin
- ▶ Listen to Business Bulletin
- ▶ Listen to World Service Radio

**IN DEPTH**

 **Broken dreams:**  
China's Guangdong province undone by conflicts and scandal

- ▶ What determines whether species thrive or go extinct?
- ▶ Listen to the songs and cast your vote for the Awards for World Music

**HAVE YOUR SAY**

 **Should the world trust Iran?**

- ▶ Can we stop armed groups recruiting children?
- ▶ What are your worries about bird flu?
- ▶ Canadian elections: Your views

**RADIO PROGRAMMES**

Find your favourite programme.

A-Z List  GO

**RADIO PLAYER**

Listen to your favourite radio programmes anytime you choose

Start Radio Player to listen

**RADIO SCHEDULES**

How to listen to BBC World Service on your radio.

Enter your nearest city

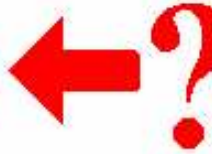
# A Bad Example

As it is shown in Internet Explorer



The whole world  
can talk for free.

237,386,157 downloads.



Home

Products

Download

Community

Store

Partners

Company

Help

With Skype  
you can talk to  
anyone, anywhere  
for  
**free.**  
Forever.

[Download Skype](#)



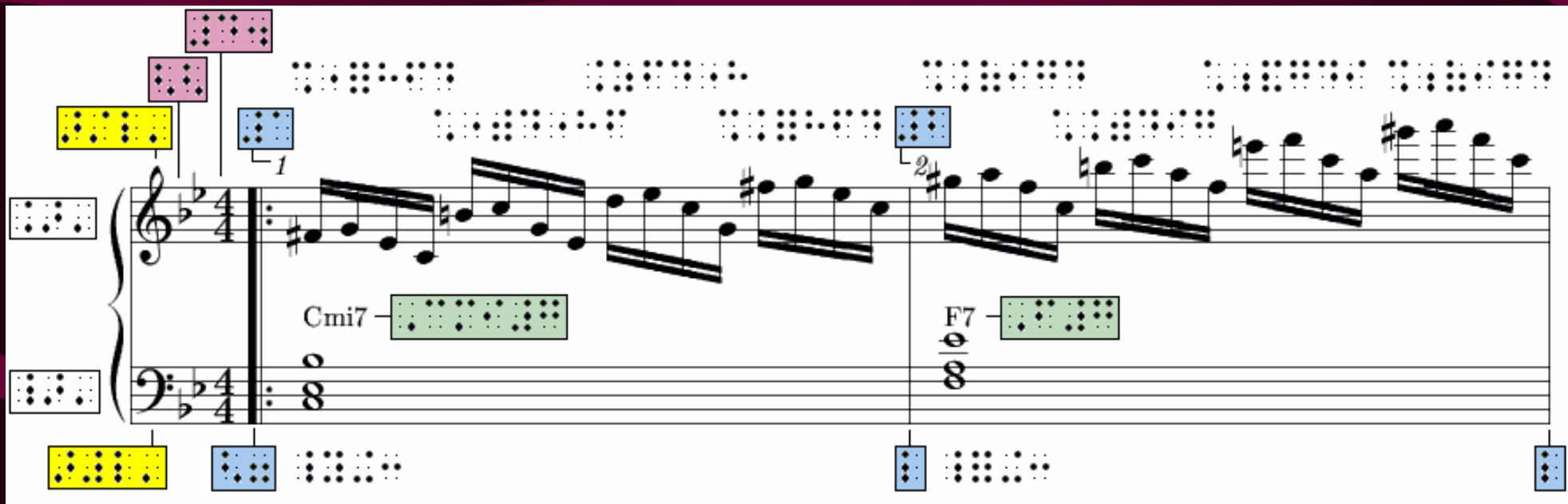
Skype is a little program for making free calls over the internet to anyone else who also has Skype. It's free and easy to download and use, and works with most computers. [Download Skype](#) now or [learn more about Skype](#) (incl. screenshots).

# Copyright Concerns of Accessible E-books, Talking Books and Music Documents

- Hungarian act about the protection of authors' rights (1999)
- Par. 41 allows free utilisation of works for the disabled
- Multiplication and dissemination for non-business purposes only
- Satisfying the needs of disabled people
- Works provided in a form that only suits this purpose
- Establishing organisations managing the "collective administration of copyrights"
- **MEK --> Hungarian Electronic Library**



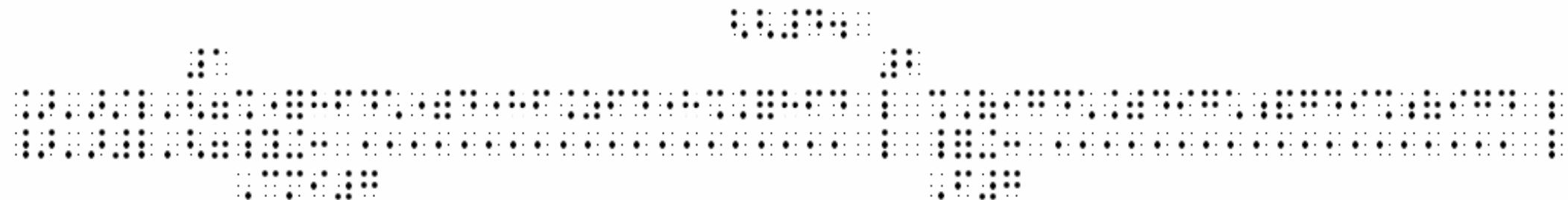
# Braille Music XML (BMX)



A musical score in 4/4 time, featuring a treble and bass clef. The score includes a melody line with slurs and a bass line with a bass clef. The key signature is one flat (B-flat). The score is annotated with Braille symbols: yellow boxes for dynamics, blue boxes for articulation, and green boxes for chord changes. The chord changes are labeled 'Cmi7' and 'F7'. The score is divided into two measures by a double bar line. The first measure is marked with a '1' and the second with a '2'.

[www.recordare.org](http://www.recordare.org)

The same music extracted into pure Braille



A large block of Braille notation representing the musical score. The Braille is organized into a grid-like structure, with each row corresponding to a measure of music. The notation is dense and covers the entire width of the page.



Thank You for Your Attention

