**SubTTS** – speaking movie subtitles

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why speak subtitles?

Persons who have difficulties reading can benefit from spoken subtitles; there are more than one might think:

- **Sight disorders**: 1–2% of the Swedish population (SRF – Swedish Association of the Visually Impaired).
- **Poor reading skills**: 5–8% of the Swedish population (OECD – Organisation for Economic Co-operation and Development).
- **Attention disorders**: 3–5% of the Swedish population (Socialstyrelsen – Swedish National Board of Health and Welfare).

what do we offer?

We have two stand-alone applications and a web demo:

- **Windows**: Stand-alone movie player based on the VLC open-source player.
- **Mac**: System “menulet” that can communicate with several common movie players.
- **Online**: Web demo that uses HTML5 for playing the movie, showing subtitles and speaking them. Unfortunately HTML5 does not currently include speech synthesis, but will probably in the near future.

Everything is open source (GPL) and freely available:  
http://code.google.com/p/subtts

what do users think?

We are currently evaluating the systems with a small panel of users with sight or reading disorders.  
No conclusive results, but the initial reactions have been positive.

how does it work?

- Human-written subtitles are downloaded to the computer as ordinary text files.
- The SubTTS application communicates with the movie player to know the position in the current movie.
- At the correct time, speech synthesis is called to read the subtitle aloud.

what are there alternatives?

- **TV**: Some broadcasting companies transmit spoken subtitles in a separate TV channel. This is done in at least Sweden, Denmark, and the Netherlands.
- **OCR**: There are some prototype systems that uses Optical Character Recognition (OCR) to read the subtitles off the screen and then speak them.

* The screenshots are taken from the open source movies Elephants Dream (http://orange.blender.org) and Sita Sings the Blues (http://www.sitasingstheblues.com)