TABLETkoulu
Uusi tapa oppia ja opettaa

Finnish publishing company Tabletkoulu, is launching ReadSpeaker in their digital books for secondary education.

The following is a translation of their blog post. Watch the video (in Finnish).

While the Digital Services Accessibility Directive challenges educational publishers, Tabletkoulu is the first educational publisher in Finland to introduce speech synthesis into high school content. It has introduced the ReadSpeaker speech synthesis service webReader in its digital reading materials, which converts text into speech and includes other auxiliary functions that support learning.

It is a text-to-speech audio function that gives voice to electronic high school courses. ReadSpeaker voices are created by recording several hours of speech by a Finnish voice actor, after which the recordings are fused into phoneme and audio compositions for speech generation. Many months work is behind the final voices.

About Tabletkoulu

- **Number of Employees:** 21

- **Year Founded:** 2013

- **Industry:** Educational Publisher

- **Website:** Visit Website

Tabletkoulu is a digital eLearning and publishing company that has developed an IT system infrastructure that combines pedagogically-designed learning material and a learning platform with a publishing concept that is able to provide support and cost-effective teaching material.

With ReadSpeaker, challenged students will not be left behind, but enjoy the same up-to-date information as others.

"I had a student with visual impairment. He used audio books and the edition was always old. The student did well, but it required me to always give him summaries of the text in Word and I wrote all the new graphite lessons. Now there is no educational material in the school that is compromised on this issue," praises Niina Väntänen, teacher of history and social studies at Kallio high school.

In Sweden, ReadSpeaker is already widely used in teaching materials. Tabletkoulu tested the performance of speech synthesis during the academic year at four different high school courses, and the results were encouraging in Finland.

"Positive feedback has come from many and very different learners. Some of the pupils have supported reading while listening to the contents of the headphones. One student said they did exercises while listening to the text," says Soikkeli.

"The implementation of ReadSpeaker is not just about text-to-speech technology, but it also includes pedagogical functions such as the text cursor and simplified view that make reading easier on the screen. Tabletkoulu wants to contribute to promoting equality between different learners. The combination of audio and, for example, highlighted text can help anybody better understand the content being taught. Accessibility not only applies to special groups, but everyone benefits. Now a book can be listened to while jogging, training or even on a dark bus. The advantage of voice synthesis is that it keeps up-to-date with our constantly changing content," sums up Cost and Development Director, Mari Soikkeli.

Accessibility Directive

Accessibility in technology means easy access to the web service for all people. Accessibility has many different areas and is not limited to physical facilities but also teaching materials. "Technological development and digital learning materials have made it possible to learn and teach a whole new way of delivering content in a variety of formats, regardless of time and place, in text, image, video, and audio formats. Special groups also benefit greatly. The learning materials that are available also make it easier for teachers to work, as they can also reach students with special needs. This adds to the feeling of equality," says Satu Vuorela, Salesperson of ReadSpeaker, who also has worked as a teacher.

The European Union Directive on the accessibility of public sector websites and mobile applications became effective on 22.12.2016. The national laws and regulations of the member states and the administrative provisions must be brought into conformity with the Directive by 23 September 2018. The Directive requires schools in the member states to take into account accessibility requirements in teaching materials. Legislation on accessibility is at the point where the referral round to the requirements of the Digital Services Accessibility Directive for national legislation is now over. The proposed law aims to promote the quality and security of digital services in the public sector, as well as the accessibility requirements needed to improve the conditions for special groups of society for the use of public digital services.

Accessibility does not in itself impose on educational publishers, but challenges the providers of training to offer this opportunity. Tabletkoulu's solution allows content to be updated in real-time, while the form that has been converted to them remains exactly the same. For audio books, even a small change in text requires an editing of the audio track or possibly even a new recording. This result is the audio not updating with the changing content.

"Although Finland is a small language area, ReadSpeaker invests in Finnish in both its services and the development of speech synthesis. We also invest in other Nordic languages and smaller language groups and we update the quality of speech synthesis at regular intervals. The use of voice technology in web services and mobile devices has increased tremendously in recent years, not only through accessibility directives, but also through new uses such as Internet of Things, which will increasingly be seen in teaching technology," says Satu Vuorela.

Contact the ReadSpeaker team today to discuss how our education products can enhance your students' learning experience and learn more at www.readspeaker.com/education