ReadSpeaker® TextAid™

ReadSpeaker® TextAid™ ("TextAid") is a web-based personal literacy support tool that makes it possible for the user to listen to texts and documents using text-to-speech technology in a standard web browser. It also offers useful study tools.

Product Description

To use TextAid, the licensed user logs in to the TextAid website with a username and password. Schools, universities, colleges or companies purchase a TextAid package, i.e. a batch of TextAid licenses which are distributed to students or users by the TextAid administrator, who can add a user for each license, after which the user will receive login credentials. Textaid can be integrated in learning management systems (LMSs) and other services.

In the **TextAid text editor**, the user can

- write or paste text and then listen to it,
- have the text he types read out letter by letter, word by word and/or sentence by sentence, as he is writing it,
- activate word prediction, so that words will be suggested as he types,
- perform a spell check on his text and select from suggested corrections for misspelt words,
- translate the text to another language and listen to it read in that language,
- save the text to his personal library on the TextAid server.

The user can open documents from the library in the **TextAid document viewer**, where he can

- listen to the document page by page, while reading along with the text,
- add annotations to the document, e.g. make notes or fill in answers on a test,
- highlight important sentences in the document with the highlighter tool in four different colors and collect the highlights to produce a summary that can be edited, printed and saves as pdf, Word or mp3.

The users can upload documents of various formats to the **TextAid library**. If a document contains image of text rather than editable text, he can import the document into the library

using OCR (optical character recognition).

The user can view documents either in **layout more or in text mode**. The text editor is always in text mode. In text mode, he can change the text color, background color, text size, font and line spacing to make the text easier to read. The user's settings are saved and applied for all documents but can of course be changed again.

To **listen to the text** in the text editor or to a selected page in the document viewer, the user must click the Listen button in the menu bar. Alternatively, he can select text to listen to and then click the pop-up Listen button.

TextAid reads the content out loud whilst highlighting the sentence and the word currently being read in two different colors.

Using the buttons in the menu bar the user can stop the audio version of the content or pause and restart it, download an mp3 file with an audio version of the content for later (offline) listening, adjust the voice speed and language for the reading, adjust the colors for the synchronous highlighting, and activate several reading tools (screen mask, reading ruler, and calculator).

From within TextAid, the user can add a **web reading tool** to his web browser's bookmarks or favorites allowing him to listen to text he selects on any page on the web whilst it is highlighted in the same manner as in TextAid.

The audio is generated using text-to-speech technology. The customer can choose to have one or multiple languages activated for his TextAid package.

TextAid is a SAAS (Software As A Service) that is available to users who have been assigned a license and provided with login details.

Features

Accessibility
TextAid's full functionality is keyboard accessible.

Text to Speech
TextAid can read text out loud using state-of-the-art text to speech (TTS).

In the text editor, the user can click the Listen button in the menu bar to listen to the whole text or select a section of text and choose Listen from the drop-down menu that appears automatically when text is selected.

In the document viewer, the user can click the Listen button in the menu bar to listen to the currently selected page or select a section of text and click the pop-up Listen button that appears automatically when text is selected.

Synchronized Highlighting
Words and sentences are simultaneously highlighted as they are read.

Colors for Highlighting
A default combination of colors is provided for highlighting words (light blue) and sentences (light green).

The user can personalize these settings using the Highlighting settings button in the menu bar. Seven colors are available as background color for highlighting sentences and/or words. Underlining, or not highlighting, can be chosen as alternatives.

WYSIWYG Text Editor
The user can author texts in TextAid by using the WYSIWYG text editor that provides a number of text formatting features such as heading levels, bold/italic/underline, text formatting, etc. The text editor is opened by clicking the New text button in the menu bar. The user can open multiple text editing screens to work on different texts.

Save and Load Texts
Text or HTML content in the text editor can be named, saved to the TextAid library and loaded again in the text editor at a later time.

Personal TextAid Library
The user can upload documents of various formats to the TextAid library. The

TextAid library can also contain texts that were created in the TextAid text editor (see above) or uploaded with OCR (see below).

Document Viewer

Documents that were uploaded to the TextAid library can be viewed and read with TTS page by page using an embedded web-based document viewer. TextAid will read out loud text content on the selected page of the document (only real text, not scanned images of text).

In the document viewer, the text editing tools are disabled.

Document Navigation

Multiple methods of document navigation are available to the user to change the selected page of a document in the document viewer.

- choose desired page number from drop-down menu
- choose page thumbnail from thumbnails shown in navigation bar or heading from document outline shown in navigation bar
- go to next or previous page by clicking on next or previous page arrow

Personalized Text Appearance for Easy Reading in Text Mode

In the document viewer, pages can be viewed either in layout mode or in text mode. When in text mode, the text is viewed according to the user's text settings, which he can change using the Text settings button in the menu bar.

He can choose from 5 colors for the text color, 5 background colors, 6 text sizes, 6 fonts, and three-line spacing settings. The choices were ergonomically determined. The user's settings are saved and applied for all texts and documents but can be changed again at any time.

Reading Selected Text

The user can listen to selected text rather than the entire content of the page (see feature Text to speech). This feature is not available on all touchscreen devices.

Multiple Text Reading Options

There are three document reading settings for reading sections of a page in the document viewer. By default, the user can select a section of text on the page and click the pop-up Listen button that appears automatically (see feature Text to speech). The document reading setting can also be set so that TextAid will start reading when the user clicks anywhere in the text. The setting can be chosen so that TextAid will read the section (paragraph) the user clicks in or from where the user clicks to the end of the page.

Reading Speed

The reading speed can be adjusted. By default, it is 100%. It can be set to any value between 50% and 150%, with steps of 5%. The user's settings are saved and applied for all reading but can be changed again at any time.

Downloadable Audio File

The user can download an mp3 file with an audio version of the content of the text editor or selected page in the document viewer by clicking the download button in the menu bar. The user is asked to confirm that the audio file will be used for personal use only. The downloaded file name includes TextAid and the date and time.

Reading Multiple Languages

Available if the TextAid license is for more than one language. For some languages there are different voices, such as American, Australian, British, and Indian English. For text to speech in TextAid we can consider them as different languages. The languages available to a specific user depend on his license. The language of a document is entered when the document is imported into the library and can be changed. A document can only have one language. The language for the text editor can be changed from a drop-down menu which shows all the licensed languages. TextAid is able to read 20+ languages.

User Interface Language

The user can choose any of the licensed languages for the user interface. The user's choice is saved and applied also for future logins but can be changed again at any time.

Translation Tool

Available if the TextAid license is for more than one language. The user can type or paste any text he wishes to have translated into the text editor. He can translate into any of the licensed languages by clicking the translate button in the menu bar and selecting the desired language from the drop-down menu. This feature can be deactivated by TextAid administrators.

Web Search and Web Lookup

If the user selects text In the text editor a drop-down menu will appear which includes a web search feature (using Google) and a web lookup feature (using Wikipedia). The search results will be presented in a separate browser window. This allows users to get more information on a word or term they do not know. These features can be deactivated by TextAid administrators. These features are not available on touchscreen devices.

Tools for Reading Support

TextAid has two tools for reading support: the screen masking and the reading ruler tool. When the screen mask is activated, one horizontal strip of the screen will be bright, while the rest of the screen will be shaded. The user can move the bright bar along with the text as it is being read, to help him focus on one or a few lines of text. The reading ruler shows a horizontal section of the screen as a grey bar: the ruler. The user can move the ruler along under the text as it is being read, to help him focus on the line above the reading ruler.

Annotation Tool

The annotation tool allows the user to make annotations or notes in a document, which can later be edited, moved or removed. This feature can be used to fill out exercises. The

user can add text, lines, encircling, and rectangles, highlight a section of the page, and even draw in the document in six different colors. Annotations can be saved with the document and printed too. Documents can be viewed with or without annotations.

Highlighter Tool

The highlighter allows the user to highlight text sections in a document in 4 different colors and collect and save the highlighted texts into a separate TextAid document, which can be edited, printed and saved as pdf, Word or mp3. The user can delete highlights one at a time or delete all the highlights on a page or in the document at once.

Writing Assistance

TextAid has three tools for writing assistance:

- Text read back: text can be read out loud as you type, per letter, per word, and/or per sentence. Letters can be sounded out or spelled out.
- Spell check: checks the spelling and suggests alternative words for wrongly spelled words.
- Word prediction and auto completion: Learns from each individual user to predict and complete words. Suggests words as you type which you can listen to and select.

Web Reading Tool

The user can add a web reading tool to his web browser's bookmarks or favorites allowing him, when logged in to TextAid, to listen to text on any page on the web. He must select the text he wishes to listen to, click on the bookmark or favorite which will

make the TextAid Web Reader Listen bar show on the web page, and then click Listen. The text will be read out loud and highlighted in the same manner as in TextAid.

The user can move the Listen bar around on the web page, select the language for the reading, close the Listen bar, and send the selected text to TextAid's text editor for further use within TextAid, using the buttons on the Listen bar.

TextAid provides detailed instructions on how to install and use the web reading tool. If the user clicks the TextAid Web Reader bookmark or favorite when not logged in to TextAid, he will be prompted to log in.

OCR

TextAid can perform Optical Character Recognition (OCR) on scanned images containing text. The OCR is done using third party technology and ReadSpeaker cannot guarantee that the conversion will always be correct. The user can upload an image file, indicate which language the text is in, and choose whether the text should be converted to a text file or a PDF file. The OCR creates a file in the TextAid library containing the text and images, which can then be read in the same way as other library documents in the text editor (text file) or the document viewer (PDF). This feature can be deactivated by the coordinator.

Calculator

TextAid has an embedded calculator that can handle simple calculations (addition, subtraction, multiplication, and division). The user can turn TTS on or off. When TTS is on, the digits and operators are read out loud as they are selected, and when the equals symbol is selected, the resulting calculation and its result are read out loud. This feature can be deactivated by the coordinator.

Administrator Features

The users in a TextAid package are managed by one or more TextAid administrators, users who have been assigned login credentials as well as administration rights.

Assign Licenses to Users

TextAid administrators can create new users, i.e. assign TextAid licenses to users. Depending on the configuration of the package, the user then receives his login credentials for TextAid automatically, or in some other way, e.g. through LTI.

Group Users

TextAid administrators can create user groups and determine that users belong to one or multiple user groups. User groups can be hierarchically structured, i.e. user groups can have sub user groups. A TextAid administrator can also assign one or more users in a user group owner rights for that user group, allowing those users to share documents with the users in the group.

Share Documents with Users or Groups of Users

A TextAid administrator can upload and share documents with individual users or with all users within one or multiple user groups. Users that have owner rights for a user group can share documents with individual users or with all users within that user group. Sharing a document amounts to uploading a document into the TextAid library of certain users on a read-only basis.

Determine User Functionality

A TextAid administrator can activate or deactivate certain features per user group or for all users. These features are: calculator, web search, web lookup, translation tool, and OCR.

Assign Administrator Rights

A TextAid administrator can assign administrator rights to individual users.

Technical Specifications

Device Independent

TextAid is a device-independent and cross-platform solution. It should work on all major platforms and in all major browsers.

Fully Server-Based, No Software Downloads or Installation

TextAid users need not download or install any software for TextAid to work on their computers and/or mobile devices. TextAid is cloud-based and hosted by ReadSpeaker.

Product Hosting

TextAid is hosted by ReadSpeaker in a high-security environment with a high level of redundancy and failover and with the following properties:

- double redundant enterprise load balancing and failover
- 100% Gigabit network (internally and to the Internet)
- IBM Blade Center Linux Clusters
- redundant power supply
- highly scalable and high availability design
- environmentally friendly
- Storage Area Network (SAN) storage over Gigabit iScsi
- UPS and diesel engine power backup
- 24/7 video and audio surveillance
- Level 3 security
- Argonite-based automatic fire-fighting system
- automatic server monitoring every 3 seconds with alarm system
- automatic daily backup

Streaming Audio

The audio containing the speech is streamed to the user from the hosting server. This means that the audio will start to play before it has been fully generated.

Audio Caching System

Audio that has been listened to using TextAid is stored on caching servers to maximize performance. If the content has changed since the cached audio file was created, the audio file will be automatically updated.

Cookie for User Settings

The settings the user selects (voice settings, text settings, highlighting settings, and

document reading settings) are saved as a cookie, so that TextAid will have the same settings for that user when using the service again, irrespective of which device or browser is used.

Document Formats

The TextAid document viewer supports the following formats:

- PDF documents
- MS Word (.doc, .docx)
- Epub (epub2)
- OpenOffice
- PowerPoint (.ppt, .pptx)

PDF Document Tagging

PDF documents that are imported into TextAid must be properly tagged. TextAid uses the tagging to determine the layout in text mode as well as the reading order. More about document accessibility and tagging PDFs can be found on the following web pages: https://helpx.adobe.com/acrobat/using/creating-accessible-pdfs.html and http://webaim.org/techniques/acrobat/.

Limited Text Size

The maximum length for text in the text editor is 20,000 characters. HTML markup is included in this number, i.e. if HTML formatting is used the number of actual text characters will be smaller.

Uploading to Library

Accepted file formats are: .doc, .docx, .dpt, .epub, .odt, .pdf, .ppt, .ppsx, .pptx, .rtf, .xls, .xlsx. The maximum size for files to upload to the library is 160 MB.

There is a maximum of 100 document uploads per user per month (storage limitation). Both limits can be modified, see under Options.

OCR

Accepted file formats are: .bmp, .dcx, .djv, .djvu, .gif, .jfif, .jb2, .jp2, .jpc, .jpeg, .jpg, .pcx, .pdf, .png, .tif, and .tiff.

The maximum size for files to convert with the OCR feature is 10 MB.
There is a maximum of 25 OCR operations per user per month.
Both limits can be modified, see under Options.

Product Components

SAAS Application

The core of TextAid is the ReadSpeaker TextAid SAAS (Software As A Service) application, hosted by ReadSpeaker, and accessible to all users with login credentials for a TextAid license.

Login Credentials

The only "product component" for the user is the login credentials, which provide access to TextAid.

User Support and Documentation

Users are provided with links to instructional videos and user documentation in the form of Quick Start Guides for users and for TextAid administrators.

Options

Larger Maximum File Size for Uploading to TextAid Library

The default maximum size for files to upload to the TextAid library is 160 MB. Optionally, this maximum can be increased for the licenses in your TextAid package. This will be specified in your order confirmation.

Larger Maximum for Number of Library Uploads

The default maximum number of documents a user may upload to the library per month is 100. Optionally, this maximum can be increased for the licenses in your TextAid package. This will be specified in your order confirmation.

Larger Maximum File size for OCR Uploads

The default maximum size for files to convert with the OCR feature is 10 MB. Optionally, this maximum can be increased for the licenses in your TextAid package. This will be specified in your order confirmation.

Larger Maximum for Number of OCR Operations

The default maximum number of OCR operations per user per month is 25. Optionally, this maximum can be increased for the licenses in your TextAid package. This will be specified in your order confirmation.

Extra Languages or Voices

The default number of languages is 5. Please contact your ReadSpeaker account manager if you would like to add more than 5 available languages for the licenses in your TextAid package. This will be specified in your order confirmation.

Requirements and Limitations

Terms of Use

The TextAid terms of use will be presented to the user upon first login. TextAid will not be available to the user unless he accepts the terms of use.

Devices and Operating Systems

To use TextAid the user needs a device with the capability to play audio and headphones or speakers connected, and an internet connection, with a minimum speed of 1 Mb/s. For optimal performance a minimum of 5 Mb/s is recommended. For mobile devices 3G connection or higher. Some of the features may not be available on certain mobile devices due to limitations or restrictions in the operating systems. E.g., the Reading

selected text feature requires the use of a mouse or other compatible pointing device. Mobile devices with Chrome, Edge, Safari or compatible browsers are supported.

Browser Must Support JavaScript and HTML5 or Flash

The user must use a web browser with support for JavaScript and HTML5/CSS3 to be able to enjoy the full functionality of TextAid. Internet Explorer (version 11 or later), Edge, Firefox, Chrome or Safari are recommended.

Support for Fonts

The fonts available on the Text settings pop-up screen can only be displayed correctly if they are available on the user's device and can be displayed by the browser used (see feature Personalized text appearance for easy reading in text mode).

Text for Reading in the Document Viewer

The document viewer can only read text that is actually present as text in the document. Text that is in scanned images of text cannot be read. The OCR feature can be used to convert text in scanned images of text to actual text in a text or PDF document. The document viewer does not support reading and viewing of documents where the font is embedded in the document (embedded fonts), fully encrypted documents, or other documents where the text cannot be extracted.

Reading Multiple Languages

TextAid is able to read 20+ languages. For a complete and up-to-date list of languages supported for reading go to our TextAid web page.

Text Read Backfeature

The sounding out of letters one by one in this feature is only available for voices developed by rSpeak. Spelling out the letters is available for all voices.

Word Prediction and Auto Completion Feature

This feature is supported only for some languages. For a complete and up-to-date list of languages supported for word prediction and auto completion go to our TextAid

[web page](#).

Spelling Check

This feature is supported only for some languages. For a complete and up-to-date list of languages supported for spell check go to [our TextAid web page](#).

Document Tagging

For untagged or badly tagged documents, correct reading of the entire content in the correct order cannot be guaranteed. Neither can a correct display of the document in text mode, with heading levels, bullet point lists, and paragraphs and without images that are for layout only and not a part of the content. TextAid uses an auto-tagging function to display and read untagged documents as best it can. There is no guarantee that the auto-tagging function will lead to correct display and reading of the document.

Document Structure and Layout Mode

The TextAid document viewer will make its best effort to preserve the layout of the original document in layout mode, but for documents with a complex layout there is no guarantee that the entire document will be correctly displayed with all layout elements. The document viewer cannot represent interactive functions from source documents such as Adobe® PDF forms and embedded media objects.

Translation Tool

The translations are generated by third party machine translation software. ReadSpeaker cannot guarantee the quality of the translation output.

Web Reading Tool

There is no guarantee that the web reading tool will work on all websites due to possible technological conflicts. The web reading tool will also not work if text selection has been deactivated by the website owner.

The operating system of some mobile devices takes full control over selected text which means that the select and read function in the web reading tool may not work correctly.

OCR

Optical character recognition is performed by third party OCR software. ReadSpeaker cannot guarantee the quality of the output i.e. that all characters will be correctly recognized.

Intended Use

Customers may only use TextAid, which is a licensed service for text to speech and reading and writing support, in accordance with this product specification. It may be used only by users agreed upon in the order confirmation.
Any other use of TextAid is not considered intended use.

Disclaimer

Features listed in this document are guaranteed only if the requirements listed in this product specification are met. Specifications and features as described in this product specification can be changed by the manufacturer without prior notice.