

# ReadSpeaker® webReader

ReadSpeaker webReader (webReader for short) speech enables the text content of websites so that visitors can listen to the text.

## Product Description

ReadSpeaker webReader displays a Listen button on the web pages of the customer's website. The customer decides on which web pages webReader should be implemented.



When a visitor to the customer's website ("user") clicks on the Listen button, the Listen button expands to become a player and the content of the web page is read out loud.



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

Using the buttons on the player, the user can stop the audio version of the content, replay from the top after stopping, pause the reading, restart the reading from where it was paused, forward or rewind to content further or earlier on the page using the skip buttons, adjust the volume and reading speed, and close the player (which stops the reading).

The audio is generated by webReader using ReadSpeaker text-to-speech technology. The customer can purchase licenses for one or multiple languages and for one or multiple voices in each language.

webReader is a SaaS (Software As A Service) that can be made available to users by inserting a link to a JavaScript application and a section of HTML code on each web page that should be speech-enabled.

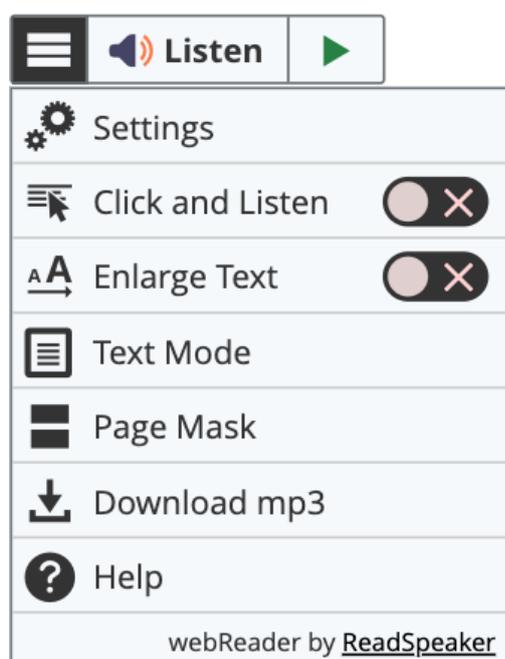
### Features for selected text

When text is selected, a pop-up menu appears with a Listen button and Dictionary and Translate options.

- Listen button - reads the selected text
- Dictionary - shows the dictionary entry for a selected word from an online dictionary for the language of the current reading voice
- Translate - translates the selected text to the language the user selects from the list of available languages shown and allows the user to listen to the automated translation

### The webReader menu

The menu button (three horizontal lines) on the Listen button and the player can be used to expand or collapse a menu, which can show menu options for the following features:



- Settings - Allows the user to
  - turn highlighting off or on,
  - choose whether to highlight only words, only sentences, or both,
  - choose the colors used for highlighting words and sentences and for the text being highlighted,
  - determine whether the page should scroll automatically following the audio version,
  - determine whether a pop-up menu with options for selected text will appear when text on the web page is selected,
  - and for how long this pop-up menu for selected text will show,
  - choose whether to use keyboard shortcuts,
  - choose the shortcut keys to use for the different features,
  - restore selected or all settings to their default values.

- Reading Voice - shows a list of licensed languages/voices to choose from for reading content on the web page. This option is hidden by default and not shown in the above image of the menu; its icon is:



- Click and Listen - when activated, webReader starts reading a paragraph when you click on it (or tap on it on a mobile device)
- Enlarge Text - shows and highlights the text being read aloud in a large font in a box at the bottom of the page
- Form Reading - when activated, webReader will speech enable form elements when the user interacts with them. webReader will read form labels and read back text entered into text fields and values selected in drop-down menus, checkboxes, and radio lists. This option is hidden by default and not shown in the above image of the menu; its icon is:

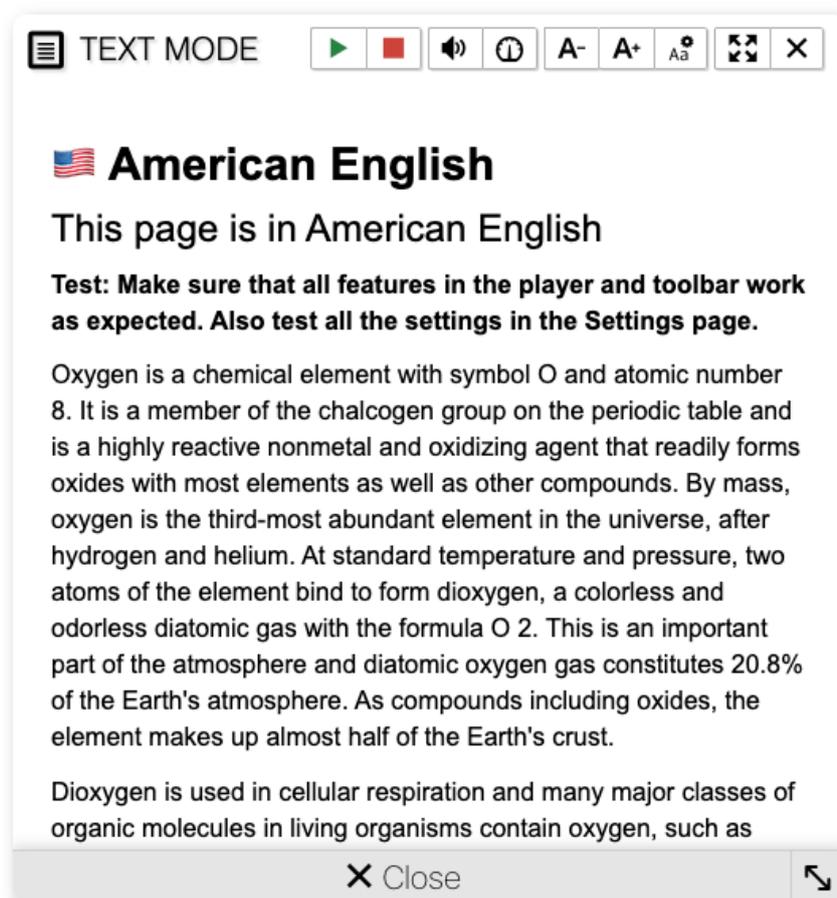


- Text Mode - shows a text oriented version of the content using the text settings (font, font size, and colors) of the user's choice (see below)
- Page Mask - opens a reading tool that brings out a horizontal bar on the screen by masking the rest of the screen above and below it. The user can move it down along with the reading for better focus.

- Download mp3 - downloads an mp3 file with an audio version of the content
- Help - provides clear instructions for all webReader features

### Text settings for Text Mode and all dialog windows

Some of webReaders features, such as Text Mode, Help, Dictionary, and Translate, will open a dialog window. All webReader dialog windows show content using the text settings (font, font size, colors, and text spacing) of the user's choice. These can be adjusted by the user from any dialog window. Dialog windows have a play button for listening to the content shown. You can play, pause, or stop the audio and adjust the text settings for dialog windows as well as the volume and reading speed, using the buttons shown at the top of each dialog window. There is also a button to maximize the window size for easier and undistracted reading.



# Features

## Text to Speech

webReader can read text out loud using state-of-the-art text to speech (TTS). webReader can read in 50+ languages. For a complete list of available languages go to [our languages web page](#).

## Accessibility

The Listen button, the player, and the menu, and therefore webReader's full functionality, are fully keyboard accessible. The Escape key can always be used to cancel the current action or close a pop-window or feature.

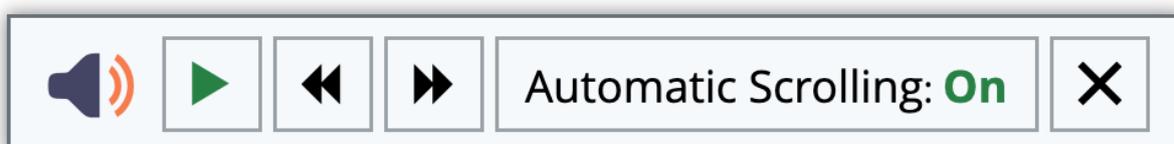
webReader has built-in functionality for keyboard shortcuts that allows for quick access to features and tools. By default webReader can be started by pressing Shift + K on the keyboard. All available shortcuts or key combinations are listed in the settings. The user can personalize the shortcuts for different actions.

webReader has a tool tip system so that when the user sets focus on a new option in the player using the keys, the button name will be shown.

Some auxiliary content, such as title and alt text attributes, will be read aloud even if they are not visible as text on the page.

## Pop-up Control Panel with Player

During audio playback, you will always see a pop-up control panel at the bottom right of the web page (or another default position determined by the customer) where you can pause/play the audio and toggle the automatic scrolling of the page (on/off).



## Synchronized Highlighting

Words and sentences are simultaneously highlighted as they are read.

For some non-Western languages (like Japanese and Thai), only sentence highlighting is available.

The customer can choose a default for the website: highlight only words, only sentences, or both, or turn highlighting off. The user can personalize these settings provided the Settings option is enabled on the menu.

## Help - User Support

The menu offers a help tool. It opens a dialog window with clear instructions for all webReader features.

## Colors for Highlighting

A default combination of colors is provided for highlighting words (light blue) and sentences (light green), and the highlighted text (black).

The customer can choose other default colors for the website. The user can personalize these colors provided the Settings option is enabled on the menu.

Eight colors are available as background color for highlighting sentences and/or words. Underlining can be chosen as an alternative. 6 colors are available for the highlighted text.

## Reading Speed

The default reading speed (or speaking rate) is “normal”. The customer can choose a different default reading speed for the website. The user can personalize the reading speed from very slow to very fast on a sliding scale using the Reading Speed button in the player, provided it is enabled. The reading speed can always be adjusted using the Reading Speed button in the top of any dialog window.

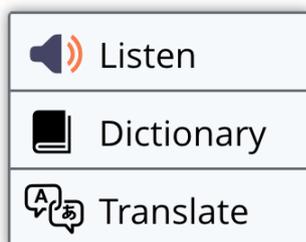
## Reading Selected Text

If text is selected on the web page, only the selected text will be read out when the Listen button is clicked, rather than the entire content of the page.

---

## Pop-up Menu for Selected Text

When text is selected a pop-up menu will show near the cursor with options for up to three features.



The user can enable and disable the pop-up menu for selected text and choose how long the pop-up menu will show, provided the Settings option is enabled on the menu.

## Listen Button for Reading Selected Text

The user can select text and click the Listen button from the pop-up menu that appears (or the main Listen button) to have the selected text read out. This allows for quick access to the reading function for selected text.

The customer can disable this feature.

## Click and Listen

Clicking the Click and Listen option on the menu activates or turns off this feature. A green tick on the toggle switch indicates that it is activated.

When activated, webReader will start reading a paragraph when the user clicks on the paragraph text. This can help readers focus on the content they want to listen to. On mobile devices, the feature works as 'Tap and Listen'.

The customer can disable this feature.

## Automatic Scrolling

Unless automatic scrolling is deactivated in the user's settings, the page will scroll automatically so that the text being read will always be visible on screen. By default, automatic scrolling is on. The user can enable and disable the feature, provided the customer has not disabled the Settings option on the menu and the pop-up control panel (see above).

## Enlarge Text - for Enhanced Text Visibility

Clicking the Enlarge Text option on the menu activates or turns off this feature. A green tick on the toggle switch indicates that it is activated.

When activated, webReader will display the sentence or text section being read at the bottom of the page, with a larger font size and simultaneous word highlighting. The user can change the font size for the enlarged text and stop, pause, and restart the reading from the Enlarged Text box. The customer can disable this feature.

## Text Mode and Customizable Text Settings - For Easy Reading

Web pages or selected text can be viewed in text mode in a separate dialog window. When in text mode, a text oriented version of the content is shown using the font, font size, colors, and text spacing determined by the user's text settings, which can be personalized. The user's text settings will be used in all dialog windows.

The content in dialog windows can also be read aloud and will be highlighted simultaneously. Reading is started and stopped or paused from buttons at the top of the dialog window. The customer can disable the Text Mode feature.

The text settings are the font, font size, colors, and text spacing that will be used when showing content in dialog windows. The default text settings are black text on white background in Arial font and normal font size.

The customer can choose other default text settings for the website. The user can personalize the text settings from every dialog window, for instance the Text Mode dialog window.

There are 12 color combinations available for the text and background, 6 font sizes, and 5 fonts. The choices were ergonomically determined. The user's settings are saved and applied for all content shown in dialog windows, but can be changed again at any time.

## Page Mask

Page Mask is a tool for reading support. When it is activated from the menu, one horizontal strip of the page will be bright, while the rest of the page 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 user can adjust the height of the bar using the plus and minus buttons on the right end of the bar. The customer can disable this feature.

## Downloadable Audio File

The user can download an mp3 file with an audio version of the content of the current web page (or of the selected text) by clicking the download option in the menu. The user is asked to confirm that the audio file will be used for personal use only. The customer can predefine a string of characters for each web page to be used as the filename when the audio is downloaded.

The customer can disable this feature.

## Customer-Defined Reading Area

For each web page, the customer can define which sections of the content should be read.

## Multiple Languages - Different Languages for Different Pages

Available if the customer has purchased a license for more than one language. For each web page, the customer can define which language (and voice) should be used.

## Reading Multiple Languages - Automatic Language Switch

This feature is off by default. The customer can choose to have it activated if a license for more than one language/voice was purchased.

webReader can automatically read different sections of a single web page in different languages, provided the text is correctly marked up for each target language with language tags according to the W3C standard. The automatic language switch does not support all combinations of voices and languages.

## Reading Multiple Languages - Manual Language Switch

This feature is off by default. The customer can choose to activate it (make it available in the menu) if a license for more than one language/voice was purchased. The user can select text on the page and use the Reading Voice option on the menu to determine in which language/with which voice the text must be read. This is only practical when there are multiple languages on the same page or when there are multiple licensed voices for the same language, e.g. a male and a female voice or voices for different dialects (e.g. English US and English Australian) . NB: if the user selects text and asks for it to be read in a language that does not match the text, the reading will not sound correct.

## Translation

The user can select text on the page (if in a language supported for translation), click the Translate option from the pop-up menu that appears, and select a language to translate into from the languages shown. The translation is shown in a dialog window. This feature is supported only for some languages. For a complete and up-to-date list of languages supported for translation, go to [our languages web page](#). The customer can disable this feature.

## Dictionary

Dictionary is a tool for reading support. The user can select a word and click the Dictionary option from the pop-up menu that appears. webReader will show a dialog window with the dictionary entry for the selected word from an online dictionary for the language of the current reading voice. This feature is supported only for some languages. See the requirements and limitations section below. For a complete and up-to-date list of languages supported for Dictionary, go to [our languages web page](#). The customer can disable this feature.

---

## Form Reading

Customers who purchase webReader can have a form reading module activated within webReader. This module speech enables online forms. It reads out the labels of fields to be filled in, and also provides audio feedback for what has been filled in or selected.

## MathML Support

This feature is off by default. The customer can choose to activate it. Math expressions rendered with MathML, can be read by webReader. Math expressions rendered with MathJax (HTML-CSS) are also supported.

## Progress Bar

When webReader is reading, the progress bar at the top of the player will show the progress of the reading in relation to the total text to be read, coloring orange from left to right as the text is read.

## Multiple User Interface Languages

Several user interface (UI) languages are supported and all UI languages are available to all customers. Multiple Listen buttons with different UI languages can be used on the same page. The user cannot modify the UI language. For a complete and up-to-date list of languages supported as UI language for webReader go to [our languages web page](#).

## Pronunciation Dictionaries

webReader can be customized to pronounce words or sequences of words in a specific way to increase the quality of the reading. The linguists at ReadSpeaker can correct mispronunciations in the general dictionary for the language used upon request. If a different pronunciation is website specific, it will be edited in the customer dictionary for that language.

## Access to Online Statistics

The customer has access to ReadSpeaker's customer portal, which provides detailed customer specific information about the usage of webReader, including how often web pages have been listened to, and when.

## Online Access to FAQ, Instructions, and Troubleshooting

All information about the customer's account, including user and implementation instructions for webReader, answers to frequently asked questions, and other documentation, is made available to the customer through the customer portal.

# Technical Specifications

## Device Independent

webReader is a device-independent and cross-platform solution. It should work with:

- all commonly used online devices: PC, laptop, Chromebook, tablet, smartphone, and more
- all major operating systems: Windows, Chrome OS, Android, iOS, macOS, iPadOS, and more
- all major browsers:
  - for laptops and PCs: Internet Explorer 10+, Edge, Chrome, Firefox and Safari
  - for mobile devices: Safari and Chrome on iOS devices, Chrome on Android devices, Chrome and Edge on Windows Phone

## Fully Server-based, No Software Downloads or Installation

Neither the customer nor the users need to download or install any software for webReader to work on their computers and/or mobile devices. The customer does not need to host webReader since it is cloud-based and hosted by ReadSpeaker.

## Simple Implementation

webReader consists of two sections of HTML code. The first, to be inserted in the <head> element of web pages that should display the webReader Listen button, contains a link to a JavaScript hosted by ReadSpeaker. The second, to be inserted in the <body> element of those web pages, ensures that the Listen button is actually shown and determines where it is shown, contains a link to start the application call when the Listen button is clicked, and defines which section(s) of the content on the web page must be read. Clear implementation instructions are included and available to the customer through the customer portal.

Plugins for even simpler implementation into your system are available for a number of CMSs. Please refer to [our plugins web page](#).

## Implementation Support

webReader includes implementation support by the ReadSpeaker support team, who will assist the customer in understanding and carrying out the implementation instructions provided by ReadSpeaker.

## Product Hosting

webReader 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 server hardware with virtualization engine
- 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

## Customer Hosting

If agreed between ReadSpeaker and the customer, the JavaScript can be hosted from the customer's own web server.

## Reads Web Pages over HTTPS

webReader can read web pages that are encrypted using SSL encryption.

## Reads Static and Dynamic Text Content

webReader can read any text content as long as it is presented using standard HTML technology regardless of how it is generated on the customer's web server.

## 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. It also means the length of the audio output cannot be determined in advance.

## Audio Caching System

Audio from web pages that have been listened to using webReader are stored on caching servers to maximize performance. If the content of the page 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 through the settings dialog window are saved as a cookie, so that webReader will have the same settings for that user, when using the service again on the same device and in the same browser. The customer can also choose to allow session cookies only, so the user settings are stored only while the user stays on the website, or disable cookies entirely.

## Graphical Design

The customer can change the appearance (skin) of the Listen button and player, including colors, font, tool tips, and button combinations, using CSS and an inline JavaScript API. An extensive manual is available for making changes to the graphical design.

## Configuration Settings

Using a configuration JavaScript API, the customer can modify a number of settings that turn off or change some of the features. Some examples of customer modifiable settings are:

- Which options to activate/deactivate on the menu, in the player and in the pop-up menu for selected text
- How long the settings cookie should survive on the user's computer
- Default reading speed
- How long the pop-up menu is shown by default when text is selected (or turn the feature off)
- Default for synchronous highlighting on/off
- Default for synchronous highlighting words only/sentences only/both
- Default for synchronous highlighting colors
- Labels that are used in the user interface, e.g. one could change the default "Play" to "Start audio"
- The customer can choose to use DeepL for translations rather than Google Translate, which is used by default.

An extensive manual is available for the configuration JavaScript API.

## Modifiable Reading Limit

webReader has a default reading limit of 20,000 characters, excluding spaces. This limit can be modified on a per customer basis.

## JavaScript Support

If the user's web browser does not support JavaScript, clicking the Listen button will open a new screen with a fully keyboard accessible audio player created with HTML elements (i.e. not the ReadSpeaker player), which can be used to play the audio version of the content of the web page or of the selected text.

## Support for HTML5

If the customer uses a browser that does not support HTML5, clicking the Listen button will create a file in MP3 format containing the audio version of the content of the web page or of the selected text. Depending on the browser, the user can then listen to the audio via a link to that audio file, or the file will be downloaded automatically and can be listened to by opening the file. In this case, synchronized highlighting is not supported.

## Translation

For translation, webReader uses translation software powered by Google Translate or DeepL.

## Dictionary

For Dictionary, webReader uses different third party dictionaries. For the languages supported for this feature webReader uses different online dictionaries, e.g. the online Oxford dictionaries for English and Spanish and Wiktionary for the other supported languages.

# Product Components

## SaaS Application

The core of webReader is the ReadSpeaker webReader SaaS (Software as a Service) application, hosted by ReadSpeaker, and accessible to all users after successful implementation of the Javascript and HTML code on the customer's website.

## JavaScript and HTML Code

webReader consists of two sections of HTML code, one of which contains a link to the SaaS application, to be inserted in web pages that should display the Listen button. The other section is the code for the Listen button itself. It should be inserted where the Listen button should appear on the web page and it must be modified to specify which areas of the page should be read.

## Implementation Instructions

Clear implementation instructions and other documentation such as FAQ are included and available to the customer through the ReadSpeaker customer portal.

## Customer Portal

The Customer receives login instructions for the ReadSpeaker customer portal. Here, the customer can access account information, statistical information about the use of webReader, implementation instructions, FAQs, and instructions for contacting support in case of questions or problems.

## Options

Options are features that can be added to webReader at a cost. Please contact your Account Manager for pricing information.

## Customer Dictionary

From the customer portal the customer can edit a basic customer specific dictionary for each licensed language to change the pronunciation of words by respelling those words.

## Multiple Languages or Voices

Standard webReader includes a license for one voice. Customers can purchase multiple voices per language (e.g. male and female or Scottish English and UK English) and/or voices for multiple languages.

## Custom Listen Button, Player, and Menu

A custom Listen button, player, and menu can be obtained by request.

## docReader Add-on

Customers who purchase webReader can also have ReadSpeaker docReader integrated into their website, so that online documents can also be speech-enabled. Please refer to the product specification for ReadSpeaker docReader for further details.

## Form Reading Add-on

Customers who purchase webReader can also have the form reading module enabled, so that online forms can be speech-enabled.

# Requirements and Limitations

## Web Pages

webReader can only be implemented on web pages where content is presented using standard HTML technology.

## Support for JavaScript and HTML5

The user must use a web browser with support for JavaScript as well as HTML5 to be able to enjoy the full functionality provided by webReader.

## iFrame Reading

By default, webReader will read the content of web pages it is implemented on, without reading content inside iFrames. webReader can be customized to read content in iFrames that are on the same domain as the web pages being read, but some webReader features may not work correctly when reading content inside an iFrame.

## Reading Multiple Languages - Automatic Language Switch

Switching language within a page does not work with all available voices, so if the customer wants to implement this feature, suitable voices must be chosen.

## Translation

The maximum text that can be translated at a time is 5,000 characters.

This feature is supported only for some languages. For a complete and up-to-date list of languages supported for translation, go to [our languages web page](#). For translation, webReader uses translation software powered by Google Translate (by default) or DeepL. Reasonable efforts are made to provide an accurate translation, however, no automated translation is perfect nor is it intended to replace human translators. Translations are provided as a service to the users, and are provided "as is." No warranty of any kind, either expressed or implied, is made as to the accuracy, reliability, or correctness.

## Dictionary

This feature is supported only for some languages. For a complete and up-to-date list of languages supported for Dictionary, go to [our languages web page](#). Different dictionary databases are used for Dictionary. No dictionary tool is perfect nor is it intended to replace contextual definitions of words.

Dictionary is provided as a service to users, and is provided "as is." No warranty of any kind, either expressed or implied, is made as to the accuracy, reliability, or correctness.

## webReader on Mobile Devices

The user interface on mobile devices with a touch screen is different from on laptops and computers. Here are the differences:

- Rather than clicking the Listen button, the user will of course tap the Listen button to start the reading.
- Rather than a player and a menu expanding separately from the Listen button, a combined toolbar and player will appear in the lower right corner of the screen.
- This combined toolbar and player can be collapsed and expanded by tapping the collapse/expand button.
- Not all features are available. Enlarged Text, Text Mode, Translate, Pop-up menu for selected text, and Help features are not available.
- The Reading Voice feature is found in the Settings dialog window rather than on the combined toolbar and player.
- The Click and Listen feature is effectively a Tap and Listen feature.
- The player in the combined toolbar and player has fewer options. Not available are the skip buttons for forwarding and rewinding to content further or earlier on the page and volume control.

## Graphical Design

Please note that while ReadSpeaker always aims to be backwards-compatible, if the appearance has been changed too much product updates can cause issues. This is particularly true when the structure of the graphical elements has been changed. Therefore, it is recommended to keep the default design.

## Intended Use

Customers may only use webReader, which is a licensed service for text to speech, in accordance with this product specification. It may be used only to allow visitors to the website(s) agreed upon in the order confirmation to listen to the content of those websites, and only when the visitors activate the service with the Listen button generated and displayed by webReader.

Any other use of webReader is not considered intended use.

## Disclaimer

Features listed in this document are guaranteed only if webReader has been implemented according to our implementation instructions. Specifications and features as described in this product specification can be changed by the manufacturer without prior notice.