

TEXT TO SPEECH  
SPEECH TO TEXT

LINK:

- ▶ Text to Speech:

- ▶ [jaocoloma.github.io/texttospeech/](https://jaocoloma.github.io/texttospeech/)

- ▶ Speech to Text

- ▶ [jaocoloma.github.io/speechtotext/](https://jaocoloma.github.io/speechtotext/)

# TEXT TO SPEECH

# DESCRIPTION:

- ▶ real time synthesizing of text input which results to natural language.

Input	Output
<ul style="list-style-type: none"> <li>• Brazilian Portuguese Plain Text</li> </ul>	<ul style="list-style-type: none"> <li>• Brazilian Portuguese Speech (1 female voice)</li> </ul>
<ul style="list-style-type: none"> <li>• English Plain Text</li> </ul>	<ul style="list-style-type: none"> <li>• US English Speech(2 female voices; 1 male voice)</li> <li>• UK English Speech (1 female voice)</li> </ul>
<ul style="list-style-type: none"> <li>• French Plain Text</li> </ul>	<ul style="list-style-type: none"> <li>• French Speech (1 female voice)</li> </ul>
<ul style="list-style-type: none"> <li>• German Plain Text</li> </ul>	<ul style="list-style-type: none"> <li>• German Speech (1 female voice, 1 male voice)</li> </ul>
<ul style="list-style-type: none"> <li>• Italian Plain Text</li> </ul>	<ul style="list-style-type: none"> <li>• Italian Speech (1 female voice)</li> </ul>
<ul style="list-style-type: none"> <li>• Japanese Plain Text</li> </ul>	<ul style="list-style-type: none"> <li>• Japanese Speech (1 female voice)</li> </ul>
<ul style="list-style-type: none"> <li>• Spanish Plain Text</li> </ul>	<ul style="list-style-type: none"> <li>• Castillian Spanish Speech (1 female voice; 1 male voice)</li> <li>• North American Spanish Speech (1 female voice)</li> </ul>

# OUTPUT CAN BE PLAYED THROUGH:

- ▶ Browser
- ▶ File Download (audio.ogg, audio.wav, audio.flac)

# USES:

- ▶ Tool for Speech and Visually Impaired
- ▶ enhances listening skills
- ▶ Foreign Language Learning

SPEECH TO TEXT



# DESCRIPTION:

- ▶ converts human voice into text form.


# INPUT:

- ▶ Microphone
- ▶ File Upload (flac, 116, wav, ogg)
- ▶ Supported languages include :
  - ▶ US English
  - ▶ UK English
  - ▶ Japanese
  - ▶ Spanish
  - ▶ Brazilian Portuguese
  - ▶ Modern Standard Arabic
  - ▶ Mandarin

# OUTPUT:

- ▶ **Text Transcription**
- ▶ timestamp of each transcribed word
- ▶ confidence score of whole transcribed input and each word
- ▶ alternative transcripts

# INTENDED USE:

- ▶ Vision Impaired Use
  - ▶ Accurate Speech Transcription
    - ▶ call centers
    - ▶ Taking notes in meeting and in class
    - ▶ Human and Computer Interaction (Voice Control Application)
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# SOURCES:

- ▶ <http://www.lc2.ca/item/85-multiple-benefits-of-text-to-speech-applications>,
- ▶ [https://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/speech-to-text.html?cm\\_mc\\_uid=06821000279314557801002&cm\\_mc\\_sid\\_50200000=1455884823](https://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/speech-to-text.html?cm_mc_uid=06821000279314557801002&cm_mc_sid_50200000=1455884823)
- ▶ <http://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/speech-to-text/api/v1/?java#recognize>
- ▶ <https://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/text-to-speech/api/v1/#introduction>
- ▶ <http://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/speech-to-text.html>
- ▶ <http://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/text-to-speech.html>