

Read&Write

The effect of Read&Write technology on literacy and education



What is it?



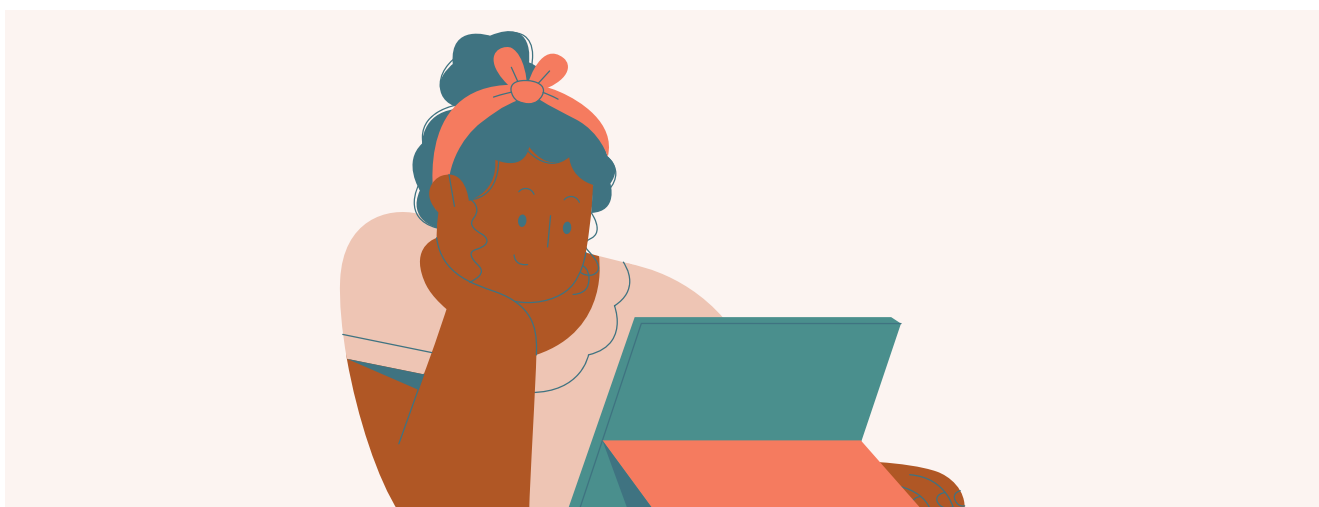
Texthelp's Read&Write is a support tool that can be used on multiple online platforms. Combines text to speech and speech recognition technology.

Educational Uses



With the increased use of Chromebooks and Google Suite in schools, Read&Write technology can remove barriers for all learners.

Students of all abilities are able to use the tool to modify their learning in areas they most need help. Some may not use or need TTS or the speech recognition, but occasionally use the dictionary option to look up new vocabulary. Others students may need the support of speech recognition to allow them to express their thoughts more easily than writing allows. By embedding a support tool that all students are able to access, equality and inclusion are increased within the classroom.



History of technology

Speech recognition

The first voice recognition systems in the 1950's focused on numbers. With the development of more sophisticated programs that recognized speech patterns and the increasing speed of computer processors in the 90's, more advanced speech was able to be understood and turned into text or provide instructions for programs such as in Siri.



Text to speech (TTS)

Talking machines which demonstrated human speech patterns date back to as early as the 18th century. Systems were developed to aid those who had lost speech due to disabilities and as reading systems for the blind. In the 80's, the technology was first used by Stephen Hawking and allowed him to communicate at speeds much faster than the hand clicker that was available at the time. TTS has advanced from the robotic voice used by Hawking to more natural sounding voices in multiple languages.



McLuhan's Tetrad



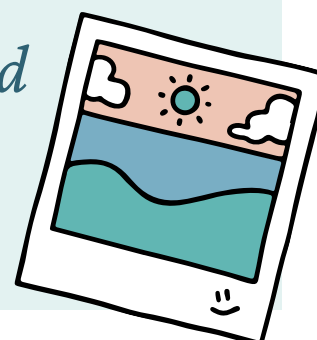
Literacy

Read&Write does not place value on one mode of learning over another.



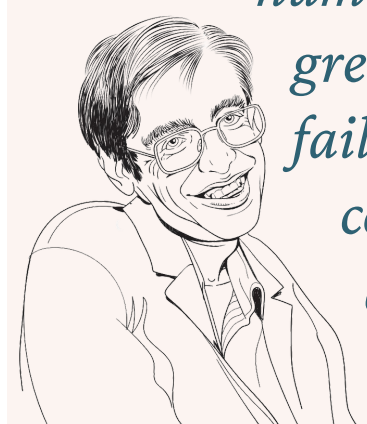
Today's students have been exposed to digital environments their entire lives. This cultural shift has changed the strategies students use for processing information. The multimodal nature of the assistance provided by Read&Write

lends itself to the type of texts students are interacting with. Written text, audio and pictures are all mediums that are recognized and supported by the various tools within Read&Write.



Stephen Hawking

"For millions of years, mankind lived just like the animals. Then something happened which unleashed the power of our imagination. We learned to talk and we learned to listen. Speech has allowed the communication of ideas, enabling human beings to work together to build the impossible. Mankind's greatest achievements have come about by talking and its greatest failures by not talking. It doesn't have to be like this. Our greatest hopes could become reality in the future. With the technology at our disposal, the possibilities are unbounded. All we need to do is make sure we keep talking."



Future Implications

Where will algorithms take us ...

Algorithms and predictive text continue to improve, making speech to text technology more accurate. Improvements in speech recognition for non native English speakers and those who speak other languages is equally important. This will remove barriers not just in an educational setting but where ever TTS and speech recognition is used.



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