



CSDHH’s Position on Automatic Transcription Software

The history of automatic transcription software (ATS) spans several decades of incremental advancements before reaching the ubiquitous status of the present. With voice recognition readily available on smartphones, tablets, and laptops the opportunity of broadening audio accessibility to Deaf and Hard of Hearing individuals is undeniable. CSDHH acknowledges this technological contribution to the community but maintains the position that ATS does not equate nor does it replace accommodation services defined by the Americans with Disabilities Act (ADA) 1990 delivered by qualified professionals. The collective information below informs CSDHH’s perspective on ATS and its emergence in more social interactions.

What is ATS?

Speech recognition technology enables electronic devices to filter human speech, to digitize it into code then, to analyze it for meaning. This technology relies on algorithms and previous input to make a highly educated guess as to what is being verbally spoken (Van der Velde, 2018). The end result is readable text on a screen.

Benefits and Limitations of ATS

Benefits	Limitations
Accessible. Allows for quick, convenient communication that can travel.	It is assumed that all users have strong English literacy skills and have connectivity to high speed internet or Wifi.
Cost-effective. Most are free to download with some in-app purchases.	Some apps are only reserved to certain operating systems: iOS or Android. Free apps may also be of limited or no use without paying to unlock necessary features.
Accurate. Some learning algorithms have achieved 95% word accuracy rate for the English language (Van der Velde, 2018).	Accuracy is affected by accents, fast speech, specialized jargon and slang. Technology does not signify voice inflections with punctuation e.g. “Hope you enjoy it!”
Quick. This technology is a time-saver for people who do not type, or who type slowly.	Deaf persons who do not voice for themselves still must text to be involved in expressive communication using the app.
Easy to Use.	Some apps are still in a beta state, meaning the app has not reached a finalized form which, can present technical difficulties.

Scenarios Best for ATS Usage

CSDHH advocates that the best judge for determining if ATS is an appropriate tool to use in a social interaction is the Deaf or Hard of Hearing person themselves. Listed below are some sample scenarios that are appropriate for dependency on ATS for communication based on the current technological limitations.

- Settings with low external noise
- Casual conversations, one -on- one
- Situations with a limited number of speakers
- In close proximity to the speaker (so the smartphone can detect speech)
- Low interactive situations with primarily one speaker

Conclusion

CSDHH embraces new technology that advances access for Deaf, Hard of Hearing, and Late-Deafened individuals. However the features of this technology, regardless of a specific app, should not be perceived or assumed to replace standard auxiliary aids outlined by the ADA such as qualified sign language interpreters and real-time captioners.

When deciding what aid or service is needed to communicate *effectively* it is pivotal to consider “the nature, length, complexity, and context of the communication as well as the person’s normal method(s) of communication” (ADA Requirements, 2014, pg. 4). Despite the benefits of voice recognition on a smartphone, the integrity of the message may be lost or miscommunicated if the above criteria is not carefully weighed. Additionally, the ADA states that public service providers must give “primary consideration to the choice of aid or service requested by the Deaf or Hard of Hearing person” (ADA Requirements, 2014, pg. 1).

Using ATS can be a viable communication medium within the parameters of the ADA that can be offered, not appointed, to the Deaf or Hard of Hearing person.

Resources

A Guide to Disability Rights Laws. (2009, July). Retrieved from <https://www.ada.gov/cguide.htm>

Information and Technical Assistance on the Americans with Disabilities Act. (n.d.). Retrieved from https://www.ada.gov/2010_regs.htm

Your Rights Under Section 504 of the Rehabilitation Act. (2006, June). Retrieved from <https://www.hhs.gov/sites/default/files/ocr/civilrights/resources/factsheets/504.pdf>

References

Van der Velde, N. (2018, October 25). How Does Speech Recognition Technology work? Retrieved from <https://www.globalme.net/blog/how-does-speech-recognition-technology-work>

US Department of Justice, Civil Rights Division. (2014). *ADA Requirements: Effective communication* (pp. 1-7). Retrieved from <https://www.ada.gov/effective-comm.pdf>

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