

Accuracy of AI Speech-to-Text Captioning for Deaf and Hard-of-Hearing Students — York University's Eight-Tool Benchmark

AI in Education · Good practice · Canada

Quality score: 53/100

Evidence strength: Moderate

Summary

York University benchmark of eight AI captioning tools for deaf/hard-of-hearing students: 4 of 5 beat 90% in a live lecture (Otter 99.7%, Ava 87.2%), but only under optimised audio.

Key dimensions

Dimension	Score
Evidence of learning impact	1/3
Equity & inclusion	2/3
Transparency, ethics & data protection	2/3
Teacher capability & pedagogy	1/3
Scalability & sustainability	2/3

Evaluated by C-NAPSE

Data sources

C-NAPSE web research — accessed 2026-10-03

York University, Faculty of Education (Deaf and Hard of Hearing Program) — accessed 2026-10-03

Millett (2021-22), Accuracy of Speech-to-Text Captioning for Students Who are Deaf or Hard of Hearing — J. Educational, Pediatric & (Re)Habilitative Audiology 25 — accessed 2026-10-03

Kafle & Huenerfauth (2017), Evaluating the Usability of Automatically Generated Captions for People who are Deaf or Hard of Hearing — ASSETS '17 — accessed 2026-10-03

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