

Why AI Struggles With ASL

The reasoning behind the “don’ts” — so you can answer a skeptical student, colleague, or administrator on the spot.

Students will push back on the limits. So will colleagues who assume a tool that handles Spanish and Mandarin must handle ASL. This page gives you the *why*.

1. THERE IS NO STANDARD WRITTEN FORM FOR AI TO HAVE LEARNED

Large language models are built from enormous amounts of **written text**. Spanish has centuries of it. ASL does not have a standard writing system in everyday use. What exists — glossing conventions, SignWriting, HamNoSys, various transcription systems — is used inconsistently, mostly in classrooms and linguistics papers, and rarely by Deaf people communicating with each other.

So when AI produces “ASL,” it is producing English words in capital letters based on patterns in ASL *teaching materials*, not fluency in the language. Gloss is a notation for talking *about* signs. It was never a script for producing them.

2. THE LANGUAGE IS SPATIAL AND SIMULTANEOUS; TEXT IS NEITHER

ASL carries meaning through handshape, movement, palm orientation, location, and non-manual markers — and it carries several of these **at the same time**. Grammatical information lives in the face and body: brow position marks question types, mouth morphemes modify verbs, body shift handles role and reference.

Written text is linear and one-dimensional. Flattening a simultaneous, three-dimensional language into a line of words loses exactly the grammar that makes it a language. This isn't a gap AI closes with more data — it's a mismatch in the medium.

3. AI DESCRIBES SIGNS CONFIDENTLY AND INCORRECTLY

This is the failure students hit most often, and the most damaging one. Ask AI to describe how a sign is produced and it will almost always answer — fluently, in specific detail, with an invented handshape or movement. It has no video, no embodied knowledge, and no ability to say “I can't see this.”

Worth demonstrating live: ask AI to describe two or three signs your students know cold, and let them catch the errors themselves. It lands better than a rule on a handout.

4. THE TRAINING DATA OVERREPRESENTS HEARING PERSPECTIVES

Most of what has been written about Deaf people online was written by hearing people — medical sources, educators, journalists, parents. That imbalance shows up in the output: pathological framing, outdated terminology like “hearing impaired,” inspiration narratives, and a tendency to treat “the Deaf community” as holding a single unified opinion on contested topics like cochlear implants or educational placement.

AI can report Deaf history reasonably well. It reproduces hearing *framings* of Deaf culture without flagging that it's doing so.

5. SIGNING AVATARS ARE NOT THE FIX

Animated signing avatars are frequently proposed as an accessibility solution. Deaf organizations, including the World Federation of the Deaf, have raised serious objections: avatars typically lack accurate non-manual grammar, natural prosody, and register, and they are often pitched as a cheaper replacement for qualified human interpreters rather than as a supplement.

The access question here is not only technical. It is about whether Deaf people were consulted, and who benefits from the substitution.

WHAT AI IS GENUINELY GOOD AT

RELIABLE	UNRELIABLE
Names, dates, and events in Deaf history	Anything about how a sign is produced
Summarizing an article you hand it	Current statistics without a cited year
Generating discussion and trivia questions	Regional and Black ASL variation specifics
Explaining a written concept more simply	Characterizing what “Deaf people think”
Drafting English prose for students to revise	Producing or translating actual ASL

THREE ANSWERS YOU CAN GIVE IN TEN SECONDS

- **“Why can’t I just use AI to translate to ASL?”** — Because it's guessing from English. ASL grammar isn't English word order, and the face does grammatical work that text can't hold.
- **“It described the sign, so it must know.”** — It always describes the sign. That's the problem. Confidence isn't accuracy. Let's test it on three signs you already know.
- **“Won’t AI replace interpreters eventually?”** — Deaf organizations are actively pushing back on that idea, and that debate is worth having in class. Bring it Thursday.

The framing that holds up: AI is a research assistant with a reading problem — it has read a great deal *about* ASL and has never once seen it. Use it for the reading. Never for the language.