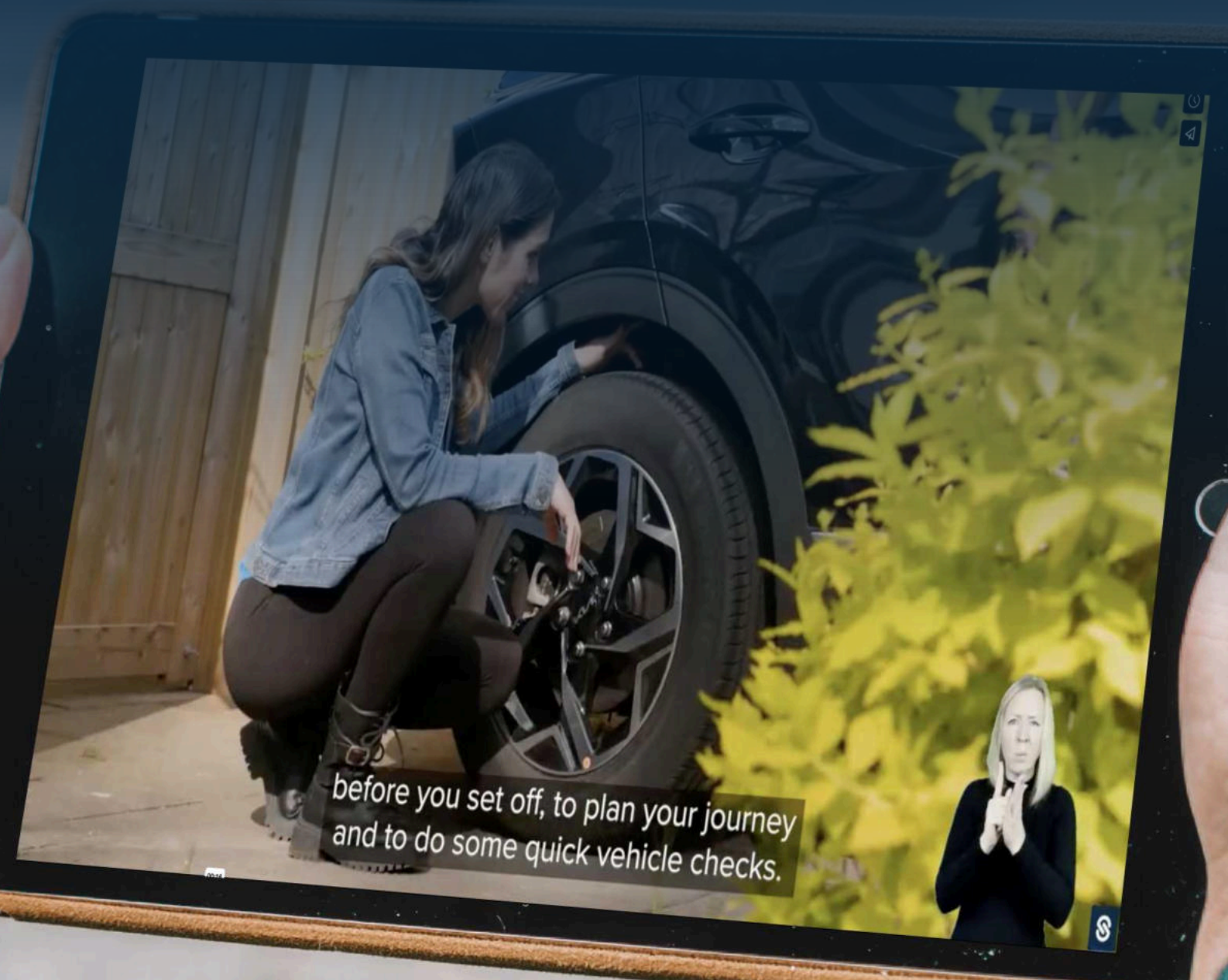


# Why Subtitles Aren't Enough: The Case for Sign Language Access



# Executive Summary

**Subtitles aren't enough.** Not for the millions of Deaf people who use sign language as their first language. This whitepaper unpacks why British Sign Language (BSL) and American Sign Language (ASL) are not just helpful additions but essential tools for communication. We break down the myth that subtitles offer equal access and explain the real-world gaps that subtitles leave behind; in education, live events, media, and everyday life. We also show how sign language-first video solutions like [SignStudio](#) and [SignStream](#) are changing the game.

*Let's rethink accessibility, from the ground up.*

# 1 Why Subtitles Miss the Mark

For many hearing people, subtitles seem like an obvious fix. Words appear on screen, problem solved, right? Not quite.

## Here's what's often misunderstood:

- Sign language is not a signed version of English.
- It has its own grammar, syntax, and structure.
- Many Deaf people learn sign language first, and English second.

This means subtitles don't provide native-language access. They rely on written English proficiency, which isn't guaranteed, especially when Deaf children often miss out on early language exposure.

With **over 320 sign languages worldwide**, each country has its own unique language. In the UK, **87,000 people use BSL as their first language**. Around 151,000 people in total use BSL, including hearing family members, interpreters, and teachers ([BDA, 2024](#)). In the US, over **500,000 people use ASL as their native language**. ASL is the **third most-used language in the US**, after English and Spanish ([CDHH, 2024](#)).

**Subtitles alone don't meet the needs of these communities. Reading subtitles is not the same as watching someone sign.** Subtitles often strip away tone, facial expression, and the emotional nuance that sign language conveys naturally. Worse still, in live settings like Google Meet or Zoom, automatic captions are frequently inaccurate or delayed. For many Deaf people, this means missed context, confusion, or complete misunderstanding of what's being said.

## 2 Deaf Population Snapshot

### UNITED KINGDOM



**18 million** UK adults report significant hearing difficulties ([RNID, 2024](#)).



**More than 50%** of people aged 55+ are affected. This jumps to **80%** for those over 70 ([RNID, 2024](#)).



**Over 87,000** Deaf individuals use **BSL as their primary language** ([BDA, 2024](#)).



The wider BSL user community includes **approximately 151,000 people** ([BDA, 2024](#)).

### UNITED STATES



3.6% of the US population, **about 11 million people**, identify as Deaf or have significant hearing difficulties ([NDC, 2024](#)).



**Over 500,000** people use ASL as their native language ([CDHH, 2024](#)).



ASL ranks as the **third most-used language** in the country ([CDHH, 2024](#)).



Every day, **more than 3 babies** are born Deaf in the US ([EPI, 2023](#)).



**2 to 3 out of every 1,000 children** are born with detectable hearing loss in one or both ears ([NIH, 2024](#)).

### GLOBAL



**70 million people** worldwide use a form of sign language ([UN, 2024](#)).



# 3 Examples That Show the Gap

## Live Streams and Events

Think of a tech conference, a government briefing, or a town hall meeting. Subtitles might keep up, but they can't show tone, urgency, or emotion. A signed translation can.

## Movies and TV

Film is visual storytelling. But when the dialogue is translated into flat text, Deaf viewers are left decoding tone, sarcasm, and cultural references through a reading lens. That's work, not entertainment.

## Public Announcements

Trains delayed. Emergency instructions. Weather warnings. Subtitles may appear, if you're lucky, but real-time sign language is what delivers clarity in the moment. Our SignStream tool does exactly that.

## Educational Videos

Imagine a child trying to learn science concepts through subtitles in a second language. It's like trying to swim with weights on. Sign language videos lift those weights, making learning natural and intuitive.



# 4 The Impact of First-Language Access

Access in your first language isn't a bonus, it's a right.

- In Deaf education, students who learn in their native sign language consistently outperform peers relying solely on written text.
- Sign language access improves comprehension, emotional engagement, and cultural connection.
- When sign language is used, viewers stay longer, understand more, and feel seen.

This isn't theoretical. At Signapse, we see it every day through user feedback and research.

The average reading age of Deaf individuals varies widely, influenced by early exposure to sign language, educational opportunities, and personal circumstances. Research shows significant disparities in literacy levels compared to hearing peers.

- About **1 in 5** Deaf high school graduates **read at or below a second-grade level** (ages 6-7)
- About **1 in 3** read between the **second and fourth grade levels** (ages 6-9)
- A 2019 study found that Deaf children were, on average, **17.5 months behind their hearing classmates** by the time they took their GCSE exams. This delay often results in lower grades in critical subjects like mathematics and English, affecting their future career prospects and earning potential (EPI, 2023).



# 5 Solutions That Work



## SignStudio

Designed for campaigns, courses, and official content. Every video goes through native Deaf translators. That means quality, accuracy, and respect for the language.



## SignStream

Our API-based, fast-response tool. Great for experimental access or real-time BSL in signage, broadcasts, and live settings. Powered by Rae, our AI signer.

**Signapse builds AI-powered tools that translate spoken or written English into British Sign Language (BSL) and American Sign Language (ASL), quickly, accurately, and with cultural respect.**

**Unlike subtitle-first solutions, we centre sign language as the first language for millions of Deaf users. Our products help you build access into your content, communications, and infrastructure.**

**Book a free demo**

## Conclusion: Let's Move Past Subtitles

Accessibility that stops at subtitles isn't accessibility.  
It's a compromise.

Sign language isn't an add-on. It's the language of millions, and it deserves to be front and centre in how we think, create, and communicate.

Let's make content that speaks their language.

Together, we can create a world where **communication barriers** are a thing of the past, and **inclusivity** is the new standard.





[www.signapse.ai](https://www.signapse.ai)

