

Innovative tools



Project Number: 2022-2-SK01-KA220-ADU-000102228



**Co-funded by
the European Union**

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Today's Challenge



10%

of people

in the European Union are deaf/hard of hearing.

**1 in
10**

every people

needs help with communication.

10%

of people

understand health information and get proper medical care

27%

EU population

(101 mil. people) have some form of disability

4x

deaf people

times more likely to have unmet healthcare needs

**30–
45%**

lip reading

understood correctly

Main communication challenges

- Healthcare staff don't know sign language
- Deaf people can't make appointments by phone
- Written information is often too complex
- Family members shouldn't need to be sign language interpreters



Common Healthcare Challenges

COMMUNICATION

- Doctors don't know sign language
- Face masks block lip reading
- Writing notes is not good enough
- Hard to book appointments by phone
- Hard to explain symptoms

MEDICAL SETTINGS

- Long waiting times
- Missing important medical information
- Family members often must help translate
- Emergency rooms are used more often than regular doctors

HEALTH RESULTS

- Deaf people visit doctors less often
- **Higher risk of:**
 - Heart problems
 - Wrong treatment and misdiagnosis
 - Missing important health information



Evolution of deaf communication technology

👉 Video-Based Tools

- Health information videos in sign languages
- Interactive educational content with visual aids
- Live transcription services for medical appointments

👉 Mobile App, example (there are many tools to choose from, depending on the languages available):

- **AVA:** Group conversation transcription
- **Rogervoice:** Live phone call transcription in multiple languages
- **Google Live Transcribe and Microsoft Translator:** Real-time transcription apps.
- **Whisper Transcription:** The latest AI transcription



Innovative communication solutions

👉 AI-Powered Tools

- **IRIS:** World's first conversational assistant in sign language
- **Sign Time Project:** Uses animated avatar for website translations
- **The new AI Avatar,** designed for sign language generation, is likely to replace the current Avatar soon. It will be able to convert simple text into sign language on its own, without needing help from experts.
- **Many AI tools are still being developed.** From 2025, we expect that there will be many more AI tools to help with transcription and subtitles, which will make things more accessible. Some of these tools are already available for testing.



Innovative Communication Solutions

👉 Ongoing Developments

- **Sign language video transcription with 70% better efficiency**
- **Personal avatar translators** for mobile devices
- **Automated emergency relay services**
- **Interactive digital tutors**
- **Real-time captioning** in medical settings
- **Video remote interpreting** for appointments
- **AI-powered** communication tools





Useful Resources

- [AI Solutions for the Deaf and Hard of Hearing](#)
- [Disability in the EU - Facts and Figures](#)
- [Healthcare Language Barriers Affect Deaf People Too](#)
- [The Future of Deaf Technology: Key Advances Explained](#)
- [Breaking Down Communication Barriers](#)
- <https://pmc.ncbi.nlm.nih.gov/articles/PMC9341675/>
- <https://pmc.ncbi.nlm.nih.gov/articles/PMC3117257/>

Sources:

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- [Disability in the EU - Facts and Figures](#)
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TO FIND OUT MORE

