This project demonstrates that community-led, conceptually driven sign development can produce a coherent, scalable BSL resource for rapidly evolving technical domains. By grounding signs in morphological families rather than English translations, the glossary supports deeper conceptual understanding alongside linguistic accessibility. As AI continues to reshape education, employment and public life, resources of this kind are essential for ensuring Deaf communities are not excluded from the conversations — and decisions — that affect them. Future work will evaluate the glossary's impact on AI literacy among BSL users.

1ST INTERNATIONAL DEAF TECH CONFERENCE 2026, VIENNA

Bridging the Gap – A BSL Glossary for Artificial Intelligence

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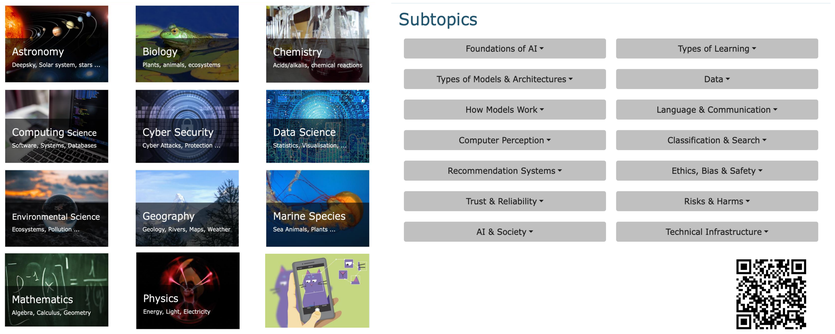
ABOUT THE AI BSL PROJECT

As AI becomes increasingly embedded in everyday life, access to clear terminology, education and information is essential for full participation in digital society. Yet Deaf people often face significant barriers to accessing information and education (Camern et al, 2017, Cohen, 2024), and British Sign Language (BSL) currently lacks standardised signs for many key AI concepts, making it harder to engage with this rapidly evolving field.

The BSL Glossary team, based at the Scottish Sensory Centre (SSC) at the University of Edinburgh, has been addressing terminology gaps in BSL since 2007, developing nearly 4,500 STEM signs through its BSL Glossary project – a freely accessible resource used across deaf education, careers and community. This includes 500 signs spanning computing, cyber security and data science, which provided the foundation for the new BSL AI glossary.



Building on this work, the Royal Society-funded project has developed **100 new signs for AI-related terms**, available online as a bilingual resource with video definitions and written English translations. The project team brings together Deaf computer scientists, data scientists, educators and sign linguists — all BSL users.

METHODOLOGY

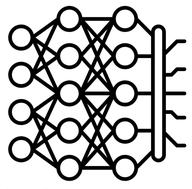
Signs were developed through a rigorous, community-informed process (Quinn et al, 2021, Cameron, 2025):

- **AI terms** were collected from school curricula.
- **Conceptually-driven signs** – visual representations of the underlying idea, not literal translations of English terms.
- **Family of signs** – interconnected signs sharing morphological features, helping users understand related concepts together
- **Structured group discussion** – focusing on visually capturing the concept, not the written English word
- **Filmed, reviewed and published** – signs agreed by the BSL glossary team before release

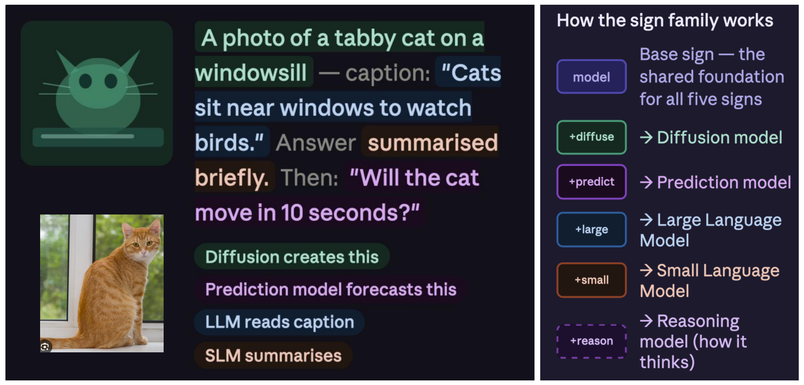
TYPES OF AI MODEL

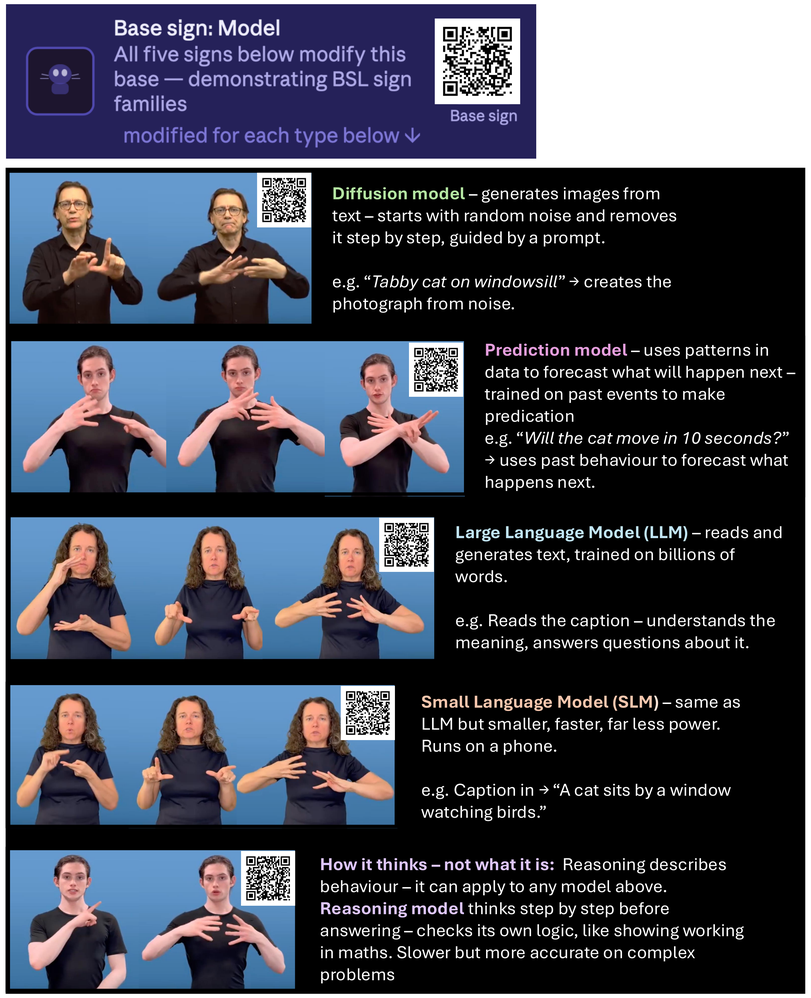
An AI model is a system trained on data to carry out intelligent tasks. Different types of model are built for different purposes – and in BSL, each sign is signed by modifying a shared base sign.

How do different AI models work — and how do we sign them in BSL? Using a familiar example – a cat photograph, a short caption, and a question – we show five model types in action. Scan the QR codes to see the signs.



In the MODEL sign, the handshape and wriggling fingers movement iconically represent the links between the circles in an AI model diagram.





CONCLUSION

This project demonstrates that community-led, conceptually driven sign development can produce a coherent, scalable BSL resource for rapidly evolving technical domains. By grounding signs in morphological families rather than English translations, the glossary supports deeper conceptual understanding alongside linguistic accessibility. As AI continues to reshape education, employment and public life, resources of this kind are essential for ensuring Deaf communities are not excluded from the conversations — and decisions — that affect them. Future work will evaluate the glossary's impact on AI literacy among BSL users.

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