In this presentation, I will share my perspective on advancing real-time multilingual sign language processing. Central to this vision is the concept of a structured pipeline comprising simple, well-defined tasks, each addressing specific aspects of sign language processing challenges. At the heart of this pipeline is sign language transcription, a key interpretable representation that serves as a foundation for independent and comprehensive research. This talk will provide an overview of various language processing tasks within this framework and emphasize the importance of collaborative efforts through independent contributions to each segment of the pipeline. By dissecting the complex process into manageable, interpretable components, we aim to foster innovation and accelerate progress in the field, moving towards more effective and inclusive communication solutions for the deaf and hard-of-hearing communities.