9th Intersteno Conference on Parliamentary and Other Professional Reporting, Captioning, and Accessibility

Presentation Abstracts

27–28 July 2026
Liverpool, United Kingdom

Monday 27 July
Chair: Rian Schwarz-van Poppel

Andrew Hill, Financial Times
The Case for Shorthand in the Age of AI

"Time saved is life gained", as the great British shorthand innovator Sir Isaac Pitman used to say, making a powerful case for his invention. But nearly 190 years after Pitman made his stenographic breakthrough, a rival technology – generative AI – can finally record, transcribe and interpret speech with sufficient speed and accuracy to deter new learners of pen-shorthand and render the "winged art" redundant. In this presentation I will examine what we will lose if we allow shorthand to become a dead language, consigned to unread archives and practiced only by enthusiasts and eccentrics. Drawing on research for my new book, I will make the case for nurturing and developing the skill before it is too late, for three important reasons. Shorthand is a key to our past; it is fuel for our brains; and it is a means of securing a future beyond the screen-bound digital gloom of our current age.

Jari Niittuinperä, Finnish Shorthand Association
The Significance of Shorthand in the Early Finnish Society

The introduction of shorthand to Finland is well documented. It was connected to the creation of the Finnish estate-based parliamentary system in the 1860s, when Finland was a Grand Duchy of Russia. Because there was no expertise in shorthand systems or in the preparation of verbatim records in Finland at that time, it was decided to send three writers to Germany to study shorthand and to develop a Swedish-language system. Initially, only speeches delivered in Swedish were recorded in the minutes, but already at the first meeting of the Estate of Peasants demands were made for the development of Finnish-language shorthand. Even at that time, the importance of verbatim records was clearly understood. The purpose of the presentation is to shed light on, among other things, the arrival of shorthand in Finland, its societal significance, the organisation of shorthand offices, the role of women in these offices, and the general role of verbatim records in democratic decision-making processes.

Boris Neubauer, Aachen University of Applied Science

The Note-Taking System of Consecutive Interpreters – a Multilingual Shorthand System?

Consecutive interpreting means: after a part of a speech is held, the speaker stops and gives the interpreter the opportunity to translate what was previously said. The blocks to be translated afterwards can range from less than a minute to ten or more minutes. The interpreter has to capture the spoken word and translate it. Relying on human memory only is too limited even for very gifted interpreters. Therefore, notes are taken. The consecutive interpreters' note-taking systems in use are based on Rozan since the 1950s and were further developed, among others, by Matyssek in the 1980s and later. For Intersteno professionals, the question is, of course, whether these writing methods are shorthand or something similar. If so: Should we invite these consecutive interpreters to participate in our competitions? If not: Should shorthand not deliver better results than the mentioned note-taking systems? The answers will be given in Liverpool.

Christian Dabeh T. Clerigo, PhilSteno

Reporting without Barriers: Philippine Court Reporting in a Global Context

This presentation examines Philippine stenography as both a profession and a lived experience, situating the Filipino stenographer within national institutions and the global professional community. It explores the nature of stenographic work in the Philippines, highlighting its indispensable role in the Legislative and Judicial Branches of government and the expanding opportunities available to practitioners. Through a reflective professional narrative, the speaker discusses his transition from traditional graphic shorthand to machine stenography, framing this shift as a moment of skills enhancement, professional reinvention, and renewed sense of purpose. The presentation further traces his journey as part of the pioneering batch of the A to Z Philippines Program in partnership with the U.S. National Court Reporters Association, leading to his role as the Philippines' Machine Stenography Ambassador dedicated to mentoring and capacity-building among emerging stenographers. It culminates in his historic participation as the first Filipino delegate to the 2024 Intersteno Congress in Katowice, Poland, and examines its impact on professional morale, collective identity, and the realization of Filipino stenographers' potential contributions to the global arena.

Laura van den Boogaard & Erik PJ Vrinds, House of Representatives of the Netherlands

Crafting Craftsmanship: Selecting and Training Parliamentary Reporters in the Netherlands

Producing parliamentary proceedings is a highly specialized job that requires excellent language and editing skills, meticulous attention to detail, as well as political sensitivity and knowledge of legislation. How to attain the necessary level of craftsmanship in absence of a specific degree in parliamentary reporting? Erik PJ Vrinds, team manager at the Parliamentary Reporting Department, and Laura van den Boogaard, parliamentary reporter and tutor, reflect on the current practices and challenges in recruitment and training at the House of Representatives of the Netherlands. They provide insight into the selection process, which includes assessment and interview rounds, discuss the intensive one-to-one training and in-house courses offered to new employees before they obtain a permanent appointment, and touch upon a changing labor market and its effects on the Parliamentary Reporting Department.

Tang Ji

Research on the Deep Integration of Chinese Stenography Skills and the Cultivation of Court Clerks

This paper explores the significance, necessity, existing problems, and related mechanisms of deeply integrating Chinese stenography skills with the cultivation of court clerk talents. Through measures such as school–court cooperation and multi-faceted integration, a part-time and full-time "dual-qualified" teaching team, an integrated teaching model combining post requirements, course competitions, and certification, a curriculum system aligned with legal work processes, a multi-party integrated teaching evaluation mechanism, and the integration of legal education and moral cultivation, current issues such as the disconnect between talent cultivation objectives and market

demands, as well as mismatched curriculum standards, can be addressed. The aim is to cultivate high-quality, application-oriented technical and skilled legal talents who meet the needs of judicial system reform.

Rachel Artis, Sopherim & Associates LLC

Bridging Continents: Bringing Stenographic Standards to Emerging Markets

What does it take to build stenographic excellence where formal systems are limited or absent? This presentation explores the practical journey of introducing and sustaining American-standard stenographic training in Nigeria and other emerging markets, creating new pathways for skilled legal professionals. Rachel Harris examines key challenges, including cross-cultural implementation, educator development, maintaining accuracy standards, and adapting to local contexts without compromising quality. The session presents a scalable model for expanding stenography through education, collaboration, and innovation. Attendees will gain actionable insights into talent development, improving access to accurate legal records, and advancing the profession through international partnerships—aligning with Intersteno's global mission.

Giacomo Pirelli, onA.I.R. Intersteno Italia

Analysis and Comparison Between Automatic Subtitles and the Ones Made by Subtitlers in Italian Language on the Mobile Phones and Computers: Updating with AI Technologies, Quality and Contest

Real-time subtitles are essential for the deaf and hard of hearing and for foreigners, allowing them to access any type of live event. Artificial intelligence appears capable of producing them quickly and accurately. But is this really the case? In this talk, I will attempt to answer this question by delving into the technical and scientific aspects of real-time subtitles. First, I will explain the difference between automatic subtitles and the ones made by subtitlers in Italian language on the mobile phones and computers, illustrating their pros and cons. I'll then analyze the potential of automatic transcription apps offered by Google, Ava, and Samsung, with a particular emphasis on phone calls (audio quality, latency, and speaker recognition). I'll also discuss some new features this year, such as offline transcription in some apps, automatic subtitles as option in the settings of operating systems like Windows 11 and MacOS, and subtitles on smart glasses.

Paula Hernandez Burguete, Cardenal Herrera University

Designing Accessible Speech-to-Text Content: Insights from User-Centred Research with Older Adults with Mild Cognitive Impairment

The increasing use of speech-to-text technologies in media and institutional contexts raises important questions about accessibility for cognitively diverse audiences. This study draws on ongoing doctoral research focused on informational accessibility for adults aged 65+ with mild cognitive impairment. It presents findings from focus groups with experts and stakeholders, as well as preliminary survey data, to identify key cognitive, technical, and discursive barriers in the consumption of subtitled and transcribed content. Based on these insights, the study outlines the adaptation process of five audiovisual materials designed for a subsequent experimental phase, detailing decisions related to textual segmentation, language simplification, and information structuring. Rather than proposing new evaluation metrics, this contribution emphasizes the importance of user-centered design processes in accessible diamesic translation. It aligns with current discussions on quality beyond purely quantitative measures and calls for a renewed focus on foundational practices in speech-to-text accessibility.

Tuesday 28 July: 9.00–12.30

Chair: Carlo Eugeni

Ana Luísa Reis, Portuguese Parliament

Interpreting Chaos: Observations on STAAR's Performance in Complex Speech Scenarios

This presentation will explore the efforts and limitations of STAAR (Sistema de Transcrição Automática da Assembleia da República), the speech-to-text solution used in the Portuguese Parliament, in complex speech scenarios – especially in the case of overlapping speakers. STAAR has repeatedly proved its high performance in structured speech, with clear and single-speaking interventions. This performance declines in quality when multiple speakers intervene, causing interruptions, heated discussions and overlapping remarks. Factors such as spontaneous reactions, side comments, multiple speakers talking simultaneously or background noise can significantly reduce the quality of transcription. For this work, I will use examples from plenary sessions and commission meetings, identifying recurring error patterns such as missing or inaccurate words or phrases, merged interventions, or incorrect attribution of speakers. By illustrating how STAAR behaves under such conditions, I will finally reflect on the system's performance and reliability.

Yeonhwan Choi, Korea Steno

The Effect of Computer-Aided Stenography in Korea

Despite of short history of Korea since 1948, stenography has offered various textualization services in Korea these days. In 1994, the first steno-machine using computer programming released for Korean by Koreasteno, and then many changes occurred in stenography industry in Korea. From minutes in parliament to subtitle in video, computer aided stenography is widely used as valid technology and about 20 000 stenographers work for several services. Some of them won the second place of the World championship in Real time speech capturing in Intersteno, showing the technology is competitive with global standard. Computer aided stenography is still developing its system and expanding its role in several business fields.

Tatsuya Kawahara, Kyoto University

How do We Transcribe Dialect Speech in Parliamentary Recordings?

While "standard" speech is usually expected in parliamentary meetings, we often observe dialect speech uttered by MPs. Dialect is often used intentionally for showing regional identity and emphasis, or for rhetorical effect. Expressions of dialect include (1) variation of pronunciation (e.g. "k" -> "g" in some dialect in Japan), (2) different lexical items (e.g. "soda" vs. "pop". vs. "soft drink"), and (3) morphological variation particularly in ancillary words (e.g. "I ain't got any" vs. "I don't have any"). I will investigate how these are transcribed in the meeting records of the national Parliament (Diet) and local assemblies in Japan by interviewing stenographers and reporters, who work to balance faithfulness and readability of the speech.

Max van Winden, House of Representatives of the Netherlands

Improving Dutch ASR Transcripts through Rule-Based Post-Processing

Automatic Speech Recognition (ASR) is becoming increasingly accurate, yet verbatim transcripts of spontaneous speech often remain insufficiently usable for parliamentary reporting because they retain disfluencies, grammatical irregularities, and other features of spoken language. At the Parliamentary Reporting Office of the House of Representatives of the Netherlands, we explore whether a rule-based post-processing pipeline applied to raw ASR output can reduce manual revision and improve the usability of Dutch ASR transcripts. The pipeline combines lexical correction and capitalization, normalization of linguistic and editorial conventions, and approximate dictionary matching for unlikely or nonsensical word forms. Although gains are small – sometimes only tenths of a percent at the word level – our experiments suggest that even modest improvements can substantially enhance transcript usability.

Liao Qing

The Irreplaceability of Stenography Technology Advantages in Judicial Support Positions

With the rapid development of science and technology, human society has entered the "intelligent era." In the course of this development, some believe that manual stenographic input has become "outdated" and unable to adapt to the intelligent era, and that stenography technology will be replaced by intelligent speech recognition software. A comparative analysis shows that, due to inherent bottlenecks, the results of intelligent speech recognition technology are far from satisfactory. In contrast, the uniqueness, accuracy, and timeliness of stenography itself give it significant advantages, making it unlikely to be fully replaced by intelligent speech recognition systems in the near future.

Eero Voutilainen, Parliament of Finland

What Is the Role of Humans when Using AI in Professional Reporting?

AI-based Automatic Speech Recognition (ASR) softwares have transformed the field of professional reporting in a relatively short timeframe. This has especially affected the agency of the reporter: many of the activities that used to be done by the reporter are now partially or entirely done by ASR. In my presentation, I analyze the different aspects of professional reporting that have been particularly affected by ASR. These include the methods, processes, principles, and practices of reporting. As a case study, I will focus on the impact of AI-based ASR on the role of parliamentary reporters in the Parliament of Finland.

Katrien Van Mulders, Flemish Parliament

AI-Supported Parliamentary Reporting: There's More to AI than Meets the Eye

Since 2024, the editorial services of the Flemish Parliament have been examining the use and implementation of artificial intelligence (AI) in their reporting processes. Overall, editors are keen to integrate AI tools in their workflow, as they alleviate the reporting task, especially in terms of the physical burden. Simultaneously, AI integration calls for increased quality control. With word error rates (WER) fluctuating between 4 and 10%, our AI reports deliver highly promising results. After all, a WER under 10% is often described as publishable quality. Yet, human intervention remains crucial. Textual analysis of several AI transcripts and AI reports based on said transcripts not only shows omissions, inaccurate adaptions and misinterpretations, the tools used are inconsistent. Whisper manages to transcribe the exact same intervention in slightly various ways, causing ChatGPT to deliver a different report altogether. The differences may seem small and insignificant, in verbatim reporting every word matters, which is especially important in political contexts. Hence, the human eyes and ears are of vital importance for a successful implementation of AI in parliamentary reporting. This paper aims at highlighting the significance of continual human intervention, to sharpen not only reporters' critical stance, but that of the broader community.

Fabio Angeloni and Paolo Antonio Michela Zucco, Senate of the Republic of Italy

Hybrid Transcription Systems and Parliamentary Reporting: An Evaluation Study

Beginning in 2020, with the advancement of automated speech transcription (ASR) systems, the two leading US manufacturers of computer-assisted transcription software for stenotyping have introduced hybrid solutions that allow for the simultaneous integration of machine shorthand and automatic speech recognition (ASR), overcoming the traditional opposition between the two techniques. This study provides an overview of the state of the art and the various ASR-based functions currently available. With specific regard to parliamentary reporting, the recently released function for real-time control of speech text output via a stenotype keyboard is explored in detail, particularly its potential use to take control of transcription in all those cases where ASR does not produce reliable results: speakers who are difficult to understand or have communication disabilities, insertion of speakers' names, correct punctuation, gestures or comments which are significant for reporting purposes, procedural formulas.